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Transport Bill in Committee

FOR three days this week the House of Commons has had before it the Transport Bill in Committee. A very large number of amendments was tabled from both sides of the House, although, as might be expected, the majority was drafted by the Opposition. The debate has been conducted under the shadow of the guillotine and so far the clauses discussed have dealt with the road transport provisions in the Bill. We shall be dealing in some detail with the discussion in our next week's issue. Meantime it is important to note that the Minister of Transport has had a fruitful meeting to discuss the Bill with representatives of the General Council of the Trades Union Congress and of unions associated with rail and road workers. The union spokesmen made clear their opposition to the main principles of returning long-distance road haulage to private enterprise, but there was a useful and detailed discussion on specific issues directly affecting union members. These included the provisions of the Bill affecting the pension rights of employees and compensation to employees; implications of the Bill for employment, wages, and conditions of service in road haulage; negotiating machinery in the Commission's undertaking as affected by the main provisions of the Bill and the size of the road haulage fleet to be retained under the control of the British Transport Commission. The Minister also formally asked the Trades Union Congress representative to consider nominating a trades union member to the Disposals Board should Parliament decide to amend the Bill in this sense. This they promised to consider carefully. It is significant that a further meeting took place without undue delay. The threat of industrial action on the Bill now seems to have been allayed.

Lt.-Colonel H. B. Everard

THE choice of Lt.-Colonel H. B. Everard, Chief Officer, Engineering (Maintenance), to the Railway Executive, to succeed Sir Arthur Griffin as General Manager of the Rhodesia Railways is an appropriate one. In Rhodesia he will find ample scope for exercising on the wider managerial plane his training and talents, as new construction forms a major part of the policy of that system. The large-scale development works now proceeding and planned range from the surveying and laying down of new links and cut-off lines to the improvement and deviation of a considerable mileage of existing line and the construction of new marshalling yards and running sheds. Colonel Everard will take with him to Rhodesia some thirty years of experience in British railway civil engineering, first on the Midland, and subsequently on the L.M.S.R. and at the Railway Executive. One of his first assignments on the newly-formed L.M.S.R. was as resident engineer for new colliery railways in Nottinghamshire, and for some years thereafter his duties entailed the supervision of lines carrying heavy mineral traffic in the Midlands. Mineral traffic also baulks large in Rhodesia and one of the projects in hand, the deviation of the Wankie-Dett section, is being undertaken mainly to ease the working of coal traffic. Colonel Everard's appointment will take effect on January 16, when Sir Arthur Griffin will become Chairman of the Rhodesia Railways Board in place of Lt.-General Sir Clarence Bird. Sir Arthur Griffin's contract as General Manager expires next May, shortly after that of Sir Clarence Bird, but to lose two such competent officers in rapid succession would have been a serious matter to the railways. To ensure continuity, therefore, Sir Arthur Griffin will retain the Chairmanship until May, 1954.

Signal Engineers' Annual Dinner

MR. ALAN LENNOX-BOYD, Minister of Transport, told the Institution of Railway Signal Engineers at their dinner on December 5 that while legislation at present must depend rather on what was possible than what was desirable, they were trying to bring the two aims into close harmony so that what was desirable would also be what was possible. He believed in fair competition on the railways, but achieving this condition by a review of rates and charges would not alone induce people to travel or send their freight by rail. The final test would depend on safety, and in this direction he acknowledged the valuable work of the Institution in ensuring a flow of specialists to bring railway safety devices towards perfection. Mr. T. S. Lascelles, President of the Institution, appropriately replied to this tribute by recalling the groundwork of safety laid by the Inspecting Officers of Railways even before the Institution was founded, and their continuous association with it from its early days up to the present time. The international repute attained by the Institution was the theme of Mr. C. E. R. Sherrington's reply for the visitors, in which he spoke of the President's abilities as a linguist and how well known he was on the Continent of Europe.

Investigation into Irish Transport

THE Government of the Republic of Ireland is making a full-scale review of transport. Speaking last week to the C.I.E. Debating Society, Mr. Sean Lemass, Minister for Industry & Commerce, said that Coras Iompair Eireann

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was losing so heavily that something would have to be done about it. It was clear that all aspects of transport policy would have to be re-examined, both the type of public transport organisation which could best serve national interests and the place of the railways in it. The Board of C.I.E. was preparing proposals for capital investment, reorganisation of services, and the adjustment of working methods which might reduce and eventually eliminate losses. There was no secret, said the Minister, about his view that the case for the preservation of an extensive railway system, and for the possibility of operating it economically, was unlikely to be undermined by an inquiry. There was, however, no justification for keeping open branch lines for reasons of prestige, if the public did not want them. He had long ago advised the Board to abandon uneconomic branches. The solution for the railways had to be found in re-equipment, as much of the existing equipment was out of date, but this would involve a large amount of capital investment.

First British 50-cycle Electrification

TRIAL running for experimental purposes has begun on the Lancaster to Morecambe and Heysham line of the London Midland Region, now re-electrified with single-phase a.c. at the industrial frequency of 50 cycles in the contact wire instead of the 25-cycle system used from 1908 until the former equipment was withdrawn in February, 1951. A new substation at Green Ayre Station, Lancaster, connected to the North-Western Electricity Board network, has replaced the former motor-generator substation at Heysham. Three existing 3-coach units have been equipped with rectifiers and d.c. motors by the English Electric Co. Ltd. At present the supply is at 6,600 V., but the overhead equipment is designed for 20,000 V. should it be decided to raise the voltage in later stages of the experiments. A 4,000 ft. length of track has been equipped by British Insulated Callender's Construction Co. Ltd. with various types of modern single-track supporting structures for the overhead line. These experiments, announced in our November 23, 1951, issue, implement the recommendations of the B.T.C. report on electrification of railways that trials with 50-cycle traction should be made on a suitable line, and the use of rectifiers reflects the comments in the same document on the equipment of a.c. stock for inter-working with d.c. lines. Service running with the 50-cycle stock is not expected to begin until the New Year.

Overseas Railway Traffics

A FEATURE of receipts for the last few weeks of railways in Central and South America has been the marked increases over the corresponding periods of last year. The most remarkable traffics are those of the Paraguay Central, which at G 729,000 for the last week recorded (to November 28) were almost double last year's figure, whilst aggregate receipts since July 1 also are twice those for the 22 weeks of 1951; no reason for this is apparent. Antofagasta (Chili) & Bolivia receipts at £181,160 for the same week are £42,430 up on last year, but show a considerable drop on the £208,210 for the preceding week. Peruvian Corporation traffic receipts for November for the railways in both Peru and Bolivia, continuing the tendency shown in October. Whilst Canadian Pacific receipts for October at £13·5 million were very slightly less than that month's figure last year with a slight increase in net earnings, Canadian National traffics at £19·8 million show an appreciable increase of over £1 million, with an increase over October, 1951, in net earnings of £750,000. Gold Coast Railway receipts for October showed an increase of £57,000 over the corresponding period of last year.

Improvements at British Railways Stations

LIMITATIONS on capital expenditure have necessitated careful selection of the improvements that can be effected at British Railways stations within the funds available. Ingenuity and skill are being shown in gaining maximum benefit from the expenditure, as is exemplified by the improvements at Bletchley Station, L.M.R., described elsewhere, where the general effect has been heightened by modernisation of signs, the train indicator, and advertising displays to conform with current style. We also record this week the extensive programme of repainting at stations in readiness for the Coronation period. Desirable as this work is in itself, its results will be seen to the best advantage if accompanied by renovation of fittings and replacement of outmoded equipment as far as finance allows. Work at a terminus such as Euston cannot, of course, be regarded as representative of what can be done at stations in general, but the principle of selecting priorities and proceeding in stages individually beneficial to the travelling public, referred to by Mr. John Elliot and Mr. J. W. Watkins at the opening of the new Euston inquiry bureau this week, sets a pattern that can be followed everywhere. Mr. Elliot's comment that "in these days of restrictions it is a great joy to see something done and not simply talked about" voiced the feelings of many.

Track Recording Instruments

HALLADE track recorders have been in use on British Railways for more than 20 years. The apparatus is portable, and can be taken into any vehicle on a train without difficulty. It measures the reactions of the vehicle to the condition of the track, but the characteristics of the vehicle impose certain limitations on the accuracy of the records. For some time past, the Railway Executive has studied the question of carrying out track inspection with a specially-designed vehicle, and three types of car have been considered. One of these, the Mauzin car, from the French National Railways, is now undergoing trials on the Western Region, and reference to one of its journeys between London and Reading is made elsewhere in this issue. The Mauzin apparatus (described in our September 12 issue) differs from the Hallade recorder in that it measures the vertical and horizontal alignment of the track, and not the response of the vehicle to the condition of the track. A comparison of the two sets of records provides an interesting field of study, and it may well be that the present trials will reveal that a combination of the two systems will yield the best results.

A 70-m.p.h. Swiss Schedule

WITH the introduction of the Swiss winter timetables there has appeared the first run ever scheduled in that country at 70 m.p.h. from start to stop. It is made over the fairly straight and level course from Lausanne to Geneva—although even this is not free from short inclines at up to 1 in 100 in steepness—by the Geneva connection which the Swiss Federal Railways provide with the French railcar that now runs between Dijon and Lausanne. Leaving Lausanne at 12.3 a.m., this train, carrying third class passengers only, covers the 37·4 miles to Geneva in 32 min., at 70·1 m.p.h. Passengers are thus able to leave Paris at 6.25 p.m., by the *rapide* which covers the 195·3 miles to Dijon non-stop in 152 min., to change there into the *autorail*, which spends only 15 min. at the frontier station of Vallorbe and gets them into Lausanne at 11.58 p.m., where a second change makes it possible, by the 70-m.p.h. Swiss service, to be in Geneva by 12.35 a.m. All the fast Swiss runs of the summer timetable are continued for the winter, including the greatly accelerated morning Geneva-Milan and evening Milan-Geneva trains, and the number of runs booked at from 60 to 70·1 m.p.h. from start to stop in this small country now rises to 31 daily, covering in all 808 miles.

French-German Railcar Service

WITH the beginning of the winter timetables on October 5 a new railcar service crossing the Franco-German frontier at Homburg/Bruchmühlbach was introduced to give faster connections between France and the Frankfort-Mainz area. The car runs from Bar-le-Duc to Frankfort on weekdays and from Metz to Frankfort on

Sundays, the route followed being Saarbrücken-Kaiserslautern-Bad Kreuznach-Mainz. From Paris the connection is given off the morning *rapide* at 8 a.m. to Strasbourg, hitherto operated by the Michelin pneumatic-tyre train, and Frankfort is reached at 4.9 p.m. In the westbound direction Frankfort is left at 3.8 p.m. and, making use of the up Michelin from Bar-le-Duc, Paris is reached at 11.35 p.m. These times of 8 hr. 9 min. and 8 hr. 27 min. for the 400-mile journey mean an end-to-end average of 49-47½ m.p.h., and a saving of something like 3 hr. over previous Paris-Frankfort times. At the moment the Bar-le-Duc to Frankfort trips are being operated by S.N.C.F. single-unit railcars having 16 first class and 36 second class seats. The German authorities still seem in a quandary as to the train number of this service, for *Bundesbahn-Mitteilungen* for October 13 gives it as Ft 1104, whereas the winter *Amtliches Kursbuch* says Ft 1101 eastbound and Ft 1124 westbound.

Large Mechanical Signal Boxes

THE recent abolition of the 288-lever No. 2 signalbox at Euston recalls the days when power signalling was hardly thought of and the development of busy railway centres gave rise to many such boxes. At its opening in 1891 the Euston box was the largest in the country, but London Bridge North was a close second with 280 levers and Liverpool Street West had 244; Brighton South had 240 and there they were in one continuous row. Later Waverley East had 260, also so arranged, and finally at York Locomotive Yard was seen the extraordinary total of 295, again in one frame. The more usual practice, however, was to have two frames in these large boxes and this was done at Waterloo "A" at the enlarging of the station in 1892, where there were 236 levers. Of these seven were "gear levers," actuating the so-called "simplex" signal selecting mechanisms, enabling one lever to work several signals, and 16 were "setting levers," actuating interlocking mechanism in order to reduce the special interlocking. By these artifices the equivalent of over 400 levers was obtained and in many respects the box can be regarded as having been the high water mark of mechanical signalling development. After many modifications, including the addition of a certain amount of track circuit control and replacement of the numerous signal arms by route indicators, this remarkable box, the greatest piece of work ever carried out by the old firm of Stevens & Sons, disappeared with the coming of power signalling in 1936 and the other boxes mentioned above also have given place to more modern methods.

Boiler Knowledge Needed

ARTICLES on locomotive boiler design, and on actual steam-raising capacity, which we have published in recent months, have tended to deal with these aspects empirically, or to take the evaporative capacity as a whole without attempting an analysis of the contributions or characteristics of the constituents. If the steam locomotive is to continue as a serious factor in railway motive power for important duties, the time is ripe for another comprehensive study, based on test results, of heat transfer, efficiency, and evaporation of firebox and tubes, unburnt fuel, and efficiency of absorption of boilers of different proportions, to carry on the work of the late Lawford Fry, which for many years has been the stand-by of all those locomotive men who wanted to get a little further than the Cole ratios or other adventitious aids for those who could not or did not wish to increase their knowledge. Recent investigations in Germany, for example, showed that mean heat transfer and mean firebox temperatures are but slightly affected by either form or material (steel or copper) of the firebox; though the firebox wall temperature is affected largely by the material but not by the shape. Air regulation through the bars was seen to be of oustanding importance, as was realised in England just before the war; but something more quantitative is still needed on this and other aspects of boiler design and proportions.

The Transport Bill and Scotland

A MATTER connected with the Transport Bill that has aroused much feeling north of the Border is the arrangements in Scotland. It is difficult to write dispassionately about this matter; there is a temptation to express strong feelings on much that has happened in Scotland over transport during the last few years; and as regards the future, as *The Scotsman* said on December 1, unless Scotland gets what she wants it will stimulate discontent and fan the flame of nationalism. Transport officers in Scotland are in a difficult position. They (particularly railway officers) are accustomed to think in terms of a single transport system, north and south of the Border. Most of the methods they employ are standard methods, applying to the whole of Britain. They cannot work in isolation, and have to be in regular contact with the South. They do not like the "functional" system of organisation from London, and there is far too much of politics in the business; otherwise there is not much complaint. In Scotland itself, however, the influx of politics has made it extremely difficult to provide a transport service on an economic basis, and this has resulted in much unjustified criticism, both in Scotland and in London, of the Scottish transport organisation. A line of policy is decided on, soon after, because it proves unpopular, it is changed under political pressure. A business organisation cannot work efficiently in these circumstances, and transport in Scotland is no exception.

The Transport Bill has as one of its principal objects the deliberate establishment of public road and rail competition throughout the country. Influential Scottish opinion, Conservative as well as Labour, does not want this. It wants a continuation of the policy of integrating public transport in Scotland and it wants as much control over it as it is possible to get without complete financial responsibility. The actual words of the Scottish Council's recent statement on the point are: "While a significant measure of policy creation and control in financial matters should be vested in the Scottish Transport Authority, it is not recommended that the Scottish Authority should, in financial matters, be autonomous or other than a part of the national system." A good many of the ideas of the Scottish Council are as woolly as this. For instance, they praise the old railway local board committees because they found them "effective and able to operate without disturbing the all-over national control where it applied." It may be significant that the membership of the Council includes some of the old local railway directors. But it is unlikely that railway officers who really knew would be as certain of the effectiveness of these local board committees as the Scottish Council appear to be. It is remarkable how memory plays tricks after a lapse of only a few years.

The fact of the matter is that a large part of Scottish transport does not pay and never will while present ideas prevail. The country is too sparsely populated, and even then the public transport services are not used by many of those who are there. The public transport organisation in Scotland is struggling with lack of patronage of its services. Take, for example, the Highlands. No one is more conservative about developing traffic to these parts than the people who reside there. They want all the services, but they do not seem to want people to use them, particularly the mass holiday crowds. Here is ideal holiday country, unique in the British Isles. It is as attractive as Switzerland, its customs and traditions are grand, and its folk are amongst the kindest and most hospitable in the world when you get to know them. Why is it not full of people every year from May to October? It ought to have a tourist trade at least as good as that of Switzerland. The reason simply is that Scottish people either have not wanted (or do not know how) to develop it. All that most Americans have ever heard of is Edinburgh, and this is about as much as many people know south of the Border. Hotel reservations are as hard to come by in the capital as they are in the most popular seaside resorts in England. Many people in Scotland are still living in the Victorian era when wealthy folk paid regular visits every year to

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shoot or to fish and provide a financial attraction to the countryside. Are Scots people encouraging somebody to spread rumours about the awful weather to be expected if one visits Scotland for a holiday? We met a Scot the other day who mentioned this, and although it is often said, it is simply not true.

Presumably, if the Scottish Council gets its way, the transport services that do not pay because the people will not use them, will be kept on. The Clyde steamer services will run at uneconomic fares. These problems will still arise whether transport is integrated or not, whether the old local railway boards are revived or not. They cannot be escaped by some magical device of organisation. Then, presumably, we shall reach the stage of subsidy by the taxpayers, as in the case of David MacBrayne Limited and the B.E.A.

It is a great pity that many of the most attractive railway lines in Scotland have already had to be closed. The responsibility rests with the people who did not use them. Picturesque ships have been put on the lovely lochs, but they have not been adequately used and have had to be withdrawn without any attempts at support from the local hoteliers or other residents. The end of this lamentable story has unfortunately not yet been reached, but it will not be altered by appointing a Scottish Transport Authority.

The first requirement for Scottish transport (as for British transport in general) is to remove it from politics. This does not mean that the public should not grumble about the services if they are not satisfied, or obtain redress if their complaints are justified. It does mean that when a right decision is taken on business lines it should be supported and adhered to, and that members of the Government and others should not have it changed because of uninformed clamour. The next need so far as railways are concerned is to establish proper area management such as we outlined for the country as a whole in our issue of November 7, namely a regional general management responsible to central management in London on non-functional lines.

There should, as a matter of course, be adequate Scottish representation on the British Transport Commission. In addition, there might well be a Scottish Transport Advisory Council, representative of all forms of public transport, to advise the Minister, the new British Transport Commission and the new managements, according to which is the appropriate body, on the general development of transport in Scotland. These changes would introduce a vast improvement in the arrangements north of the border, and all of them could be made without a Transport Bill or any other legislation.

Malayan Railway

A PREFATORY note to the report for the year 1951 of the Malayan Railway, by Mr. J. O. Sanders, General Manager, states that because of the pressure of work on all departments of the railway resulting from the emergency in Malaya, detailed explanation and comment in the report have been curtailed. From the beginning of the emergency to the end of 1951 there were nearly 1,000 attacks on the railway. Firing on trains usually took place at night, and Mr. Sanders points out that third class passengers, who average 92 per cent. of those travelling, suffered the heaviest casualties. The burning down of wayside stations resulted usually in the destruction of the equipment they contained; prefabricated sectional concrete buildings have been held in stock for rapid temporary replacement.

Attention is drawn in the report to the heavy cost of damage to derailed locomotives and rolling stock; to the loss of some 25 per cent of freight earning capacity arising particularly from slower wagon turnround caused by restriction of night train services; and to the loss of passenger traffic. During the recent period of exceptional prosperity in Malaya substantial sums would have been added to the railway's reserves, but for the emergency; Mr. Sanders adds that the financial position of the system would be difficult should a trade recession cause an appreciable fall in traffics.

Gross revenue nevertheless reached the record figure of $52·5 million for 1951, an increase of nearly 25 per cent over the preceding year, while expenditure rose similarly.

The following are some of the principal working results:—

	1950	1951
	(Thousands)	
Railway—		
Coaching train-mileage	1,576	1,194
Goods train-mileage	2,110	2,269
Passenger journeys	5,759	6,735
Tonnage of goods carried	2,036	2,038
	($ thousands)	
Coaching revenue	10,657	12,831
Goods traffic revenue	22,880	27,702
Total revenue	34,196	41,446
Working expenditure	29,020	35,552
Road Services—		
Revenue	741	621
Working expenditure	832	651
Wharves—		
Revenue	4,307	7,121
Working expenditure	4,137	6,359
Ferry Services—		
Revenue	432	501
Working expenditure	436	481

The position of the renewals fund is stated to be unsatisfactory, as it was impossible in 1949-50-51 to pay into the fund the full assessed contribution of $5 million to cover wasting assets, and the arrears of contribution at the end of 1951 amounted to some $18 million. Apart from the emergency, costs rose in 1951: salaries, wages, and allowances, for instance, were increased under various awards; and locomotive fuel per engine-mile in 1951 cost six times the figure for 1939. To meet these increased costs, a new basic scale of freight rates was introduced at the beginning of 1951; this basic scale became subject to surcharges as from May 1 of that year of 25-33 per cent according to class.

Increased export (mostly rubber and tin) were followed by increased import tonnages through the railway wharves at Prai and Port Swettenham. In May, 1951, the Federal Government appointed a Federal Ports Committee to consider the long-term development of ports. The Railway Board, of which the General Manager is Chairman, with official and non-official members representing various railway user interests, decided in March, 1951, on conversion of certain locomotives to oil burning; at a meeting in August, the Board sanctioned the reorganisation of the Mechanical and Traffic Departments, amalgamation of the Construction and Way & Works Departments, and creation as from January 1, 1952, of a Ports Department under a Chief Port Manager responsible direct to the General Manager. On introduction in the Federation of constitutional changes in April, 1951, the General Manager assumed additional duties as Member for Railways & Ports.

General restoration work was carried out during the year on Sentul Works. Heavy demands were made on the works for the armouring of locomotives and rolling stock and provision of armoured patrol trolleys; despite this, satisfactory progress was made with rehabilitation of war-damaged locomotives and rolling stock and of those damaged in the emergency, and with conversion of engines to oil burning.

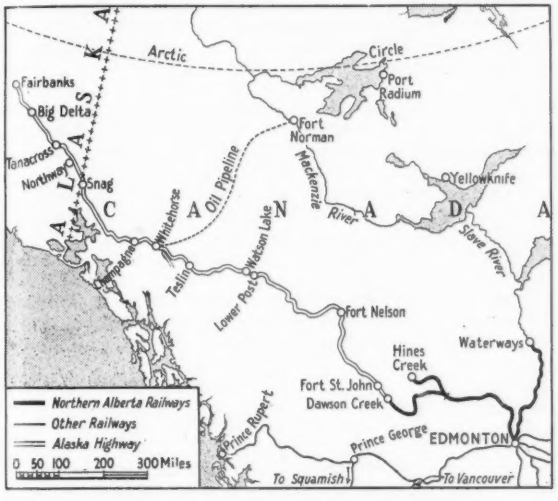
A number of second class buffet cars and third class cars were constructed on second-hand underframes; at the close of the year, four night first class cars received from the United Kingdom were being prepared for service. Three air-conditioned coaches were in service at the beginning of 1951, and a fourth coach was put in service during the year.

Reopening of the Dabong-Bertam section of the East Coast Line (destroyed in the war of 1939-45) in Kelantan increased the route-mileage by 18½ miles; it was not possible, however, to carry out any reconstruction work on the East Coast Line north of Jerantut, in Pahang, and the prewar formation between Jerantut and Bertam was maintained as a road for vehicles serving the local population and the security forces.

Railway Prospects in North-Western Canada

IN this age of Arctic defences and atomic piles considerable attention is being paid to the "new north" of Canada in which virgin mineral deposits are constantly being found and "booms" are commonplace; and where a wealth of valuable timbers avails exploitation. There is no railway yet from Canada to Alaska or even into the rich far-northern districts of British Columbia and Alberta extending to the Arctic Circle, but an editorial article in our March 24, 1950, issue gave an indication of the coal and timber prospects of a proposed extension of the Pacific Great Eastern Railway. The nearest railheads at present to these northern tracts and the nearer Peace River area are Dawson and Hines Creeks on the Northern Alberta Railways. To the east of them, Waterways, a third railhead of the same system provides a link with the Mackenzie River and Great Slave Lake districts where prospecting is active.

After many vicissitudes the railways of Northern Alberta appear to have come into their own and to be firmly established as a valuable asset to Canada. Originally four separate undertakings, with lines stretching out north west,



Communications in North-Western Canada

north, and north east from Edmonton, they were all rendered more or less unremunerative by financial conditions resulting from the first world war. Because of their developmental value, they were taken over by the Province of Alberta, and from 1920-26 were leased to the Canadian Pacific Railway for working. They were then returned to the Province, but in 1929 the combined system came under the joint control of the Canadian Pacific Railway and Canadian National Railways through the medium of a subsidiary company, the Northern Alberta Railways. Each of the trunk lines holds half the stock of this company and is equally represented on its board of Directors; the Presidents of the parent systems take it in turn to be President of the N.A.R. The system has a route-mileage of 923 miles, and is therefore the third largest in Canada.

Though it has thriven previously in proportion to the expanding development of the Peace River and farther-northern areas, this railway has greatly increased in importance since the wartime building of the Alaska Highway from Dawson Creek to Fairbanks, to serve the far-northern air and other defences of the United States and Canada. Between 1939 and 1943 freight traffic increased by some 160 per cent, and passenger traffic by nearly 800 per cent. Moreover, this volume of freight traffic has been maintained since the war, and twice the prewar number of passengers is still being carried. This continued activity is partly the result of the increasingly rapid development of the Peace River area and partly because of urgent demand for pitchblende from Port Radium, some 1,000 miles farther north. This vital requisite for atomic piles and bombs is carried almost from the Arctic Circle by lake and river to Waterways, 305 miles by rail from Edmonton. There appears to be a bright future for these railways, and it would not be surprising to learn that they were to be extended.

Coronation Lights

THERE will be a natural emphasis on the decorative aspects of lighting in the coronation year, but the opportunity may well be taken to raise general standards of illumination in places where improvements will be of permanent value. Various schemes were inaugurated to coincide with the Festival of Britain, such as the large installation at Charing Cross Underground Station, and the lighting in the new Eastern Section booking hall at Victoria. Outdoor lighting on railway premises received attention as well, of which the approach road to Waterloo is a reminder. More recently mercury lamps have been installed to brighten the walk from the Euston Road to Euston Station. Lighting has been specially studied, also, in the two improvement schemes described elsewhere this week, at Bletchley Station and in the new travel and inquiry bureau at Euston.

Equally useful improvements could be made at many stations by studying questions of local lighting. Timetable sheets and notices may call for such treatment unless the general illumination in their neighbourhood is above the average. The standard now recommended by lighting engineers is 15 foot-candles at all parts of the sheet. No less important than knowing when and where to catch the train is being certain of one's whereabouts on the journey. The platform lantern with glazed sides bearing the station name is thought by some experts to be the best solution. Possibly the worst is the small metal nameplate hanging underneath a lamp, so that not only is it inadequately illuminated, but anyone looking towards it is dazzled by the undiffused light. Quite modest shops today have spotlighting effects, and similar arrangements might be applied at stations to pick out name signs and other notices. Lamps with internally silvered bulbs can be used for spotlighting in ordinary holders, without external reflectors. Such lamps under the front of a platform awning might be directed on to signs suspended in positions conveniently visible from the carriage windows. The name on the new Euston signal box is illuminated by a fluorescent tube under a projecting canopy. This idea would enhance the value of similar large signs elsewhere on the same Region.

In view of the Ridley report's recent recommendation of fluorescent lighting for its efficiency in terms of high light output and low power consumption, applications of fluorescent tubes are of special interest. At one terminus they are being installed in all telephone kiosks and have been mounted over the directory shelves outside. Almost any station concourse or booking hall offers opportunities for improving convenience or appearance by similar methods. In recent months circular fluorescent tubes have been introduced to lend a decorative note without using elaborate fittings. The standard straight type of channel fitting has also undergone changes in design that have improved its appearance without detracting from its simplicity. Whether fluorescent or filament lighting is chosen, standardisation of one or two types of fitting gives an air of uniformity that suggests planning behind the lighting scheme. Enclosed spherical fittings are being adopted increasingly for filament lighting in waiting and refreshment rooms. They are convenient to keep clean, of good appearance by day as well as when illuminated, and give opportunity for discreet decorative variety in the finish or embellishment of the suspension rods. It is only too well known that in many places there is a long way to go to bring standards of illumination and lighting fittings on railway premises generally up to those of many commercial establishments. If next year is able to show a widespread improvement in details around which more ambitious schemes may be planned later, a useful beginning will have been made.

XUM

LETTERS TO THE EDITOR

(The Editor is not responsible for opinions of correspondents)

A.C. Electric and Steam Working Through Tunnels

December 5

SIR,—As an engineering student I have been interested to read about recent developments in France in the field of high voltage, alternating current traction, and I now learn that similar trials are being carried out by British Railways on the Lancaster—Morecambe line.

It seems to me that any such scheme is faced with the fundamental difficulty of carrying contact wires through tunnels with low headroom and heavy soot deposits; this situation must arise on any line where partial conversion from steam operation is contemplated. I should therefore be interested to know whether any of your readers has knowledge of operation of high voltage a.c. electrification through a tunnel in which there is inter-running with steam traffic, in any part of the world.

Yours faithfully,

G. L. R. DAWSON

12, Buteland Terrace, Newbiggin-by-Sea, Northumberland

Proposed Improvements to E.R. Streamline Pacifics

November 28

SIR,—The possibility that the Coronation year might be made the occasion for restoring streamline trains prompts the suggestion that the London-Edinburgh run is the obvious choice for such services, linking as it does the capitals of the two kingdoms of Scotland and England. The only streamline locomotives capable of operating this service on one tender of coal are Sir Nigel Gresley's "A4" class, the youngest of which is over 12 years old.

The death of Sir Nigel Gresley was overshadowed by momentous wartime events. In view of this, and the fact that it is only fitting that new locomotives and rolling stock should be provided for a service commemorating the Coronation, would it not be a fitting memorial to this great engineer to build a batch of the "improved 'A4'" class with 275-lb. boiler pressure, the design for which he prepared (see the paper read by Mr. B. Spencer to the Institution of Locomotive Engineers on March 19, 1947), and which he was prevented from building by the outbreak of war and, later, his unexpected death?

Everything would seem to support this proposal. The "A4" is the only design which is really satisfactory as regards the lifting of the smoke away from the cab in side winds; it had the lowest fuel consumption of all the locomotives in the 1948 trials; the new design would use nearly all the existing patterns, dies, and jigs of the "A4" class, and its perpetuation would eliminate the need for experiment with new streamlined forms for the front end. Obviously, if one wishes to deflect air upwards, a horizontal wedge is the instrument to use, not a vertical wedge or a hollow shape reminiscent of a coffee scoop.

The increase in boiler pressure would reduce the factor of adhesion from 4·18 to 3·80, which is still above that of the "Kings," "Duchesses," and "Merchant Navies." Two alterations which might be considered are:—

(1) The provision of a "Swindon" type regulator valve, as this is undoubtedly the reason for the freedom from slipping when starting which marks the "King" class, taking into account its low factor of adhesion.

(2) The provision, for purposes of comparison of maintenance costs, of a third set of valve gear in place of the 2 to 1 levers on half the batch if this were considered worth the cost of modifying the inside steamchest, to permit the valve rod entering at the rear end.

It is only natural that Mr. Riddles should tend to continue along the lines on which he already was working as regards outward appearance and mechanical design, but for a special event, special steps are needed. The last L.N.E.R.-designed Pacific was built only a short time ago, so these locomotives will not by any means be a solitary design, requiring special stocks of spares, in years to come.

Whilst not very optimistic that this course will be followed, it would be interesting to hear the official view upon the proposals outlined above.

Yours faithfully,

R. A. PASCALL

72A, Quarry Green, Old Rough Lane, Kirkby, near Liverpool

Operating Fog Services

December 8

SIR,—The weather of the last few days has shown up a weakness of the Southern Region administration. Hundreds of the public sat in trains at Waterloo waiting for drivers whose homes were at or near the end of the trains' journeys. As an example I can quote the 9.54 p.m. on Saturday for Reading which left shortly after 1.15 a.m. Surely a plan can be made to cope with such circumstances, and I suggest a room with a camp bed and a fire to be made available at terminal points when fog services are in operation.

The men may object to sleeping away from home but their service is to the public and the rough must be taken with the smooth. The entertainment world always says, "The show must go on"; why cannot the railways adopt this slogan?

Incidentally, on the same night the Eastern Region electric service running into Liverpool Street was only five minutes behind scheduled times.

Yours faithfully,

B. A. M. CLARKE

307, Staines Road, Twickenham

Rail-Bus Connections

November 13

SIR,—Mr. Norman's letter in your November 7 issue leads me to suggest that not only should other Regions follow the good example of the Southern by inserting road connections, where appropriate, in their timetables, but that all Regions should make a point of observing these connections as they would with a branch line.

Some time ago I travelled from Combe Martin to Waterloo and carefully chose a bus marked in the railway timetable to connect with the "Devon Belle" at Ilfracome Station—in fact I refrained from boarding an earlier bus not marked in the timetable. The connecting bus arrived 8 min. late—2 min. after the departure of the "Devon Belle." The station staff was concerned only with the punctual departure of the train and quite oblivious of the bus connection. I eventually received an apology from Waterloo and a refund of my Pullman ticket, but the apology was to the effect that the bus crew had failed to keep to schedule and there was no suggestion that the railway staff had any duty to observe the arrival of the bus.

We are witnessing, or have in prospect, a large-scale withdrawal of local rail services, and if co-ordination of transport is to mean anything it will surely be necessary to secure more effective co-operation between the two systems at operating level unless the public service is to suffer. I also suggest that where road operators are brought into closer working arrangements with the railways, they should redesign their vehicles to carry more standing passengers and luggage and where possible give priority of carriage to passengers with a through rail connection.

Yours faithfully,

A. R. MORDAUNT

Mavis Croft, Chipstead

THE SCRAP HEAP

Free Sleeper

The first passenger to book a sleeper at the new Euston travel bureau on Monday was handed his money back together with his reservation to Glasgow.

Lost Property

Nearly 600,000 travellers left items of baggage or money on trains and in stations of the Japanese National Railways between April and September, according to a Reuters report. Cash left behind totalled about £70,000 sterling. Among the "lost luggage" was one monkey, one set of false teeth, and a pile of mortuary boxes containing the ashes of war dead.

Always on the Move

I have been reading with pleasure the contribution of the Inland Waterways Association to the great debate on transport. . . . By subtle but sound arithmetic the Association shows that a railway wagon travels at an average speed of 3 m.p.h. over a year. The boatman averages 3 to 4 knots. "Thus, because it goes steadily from start to finish, the watersnail wins by a good horn."

The Association scornfully observes that £1,336 was spent in 1950 publicising waterways and £865,000 on the rest. The boatman got 1d. worth of publicity for every £7 worth of business, the road haulier for every £3, and the railwayman for every 34s.—"*Peterborough*" *in* "*The Daily Telegraph.*"

Last of Highland "Big Goods"

British Railways 4-6-0 type class "4" mixed traffic locomotive No. 57954, originally Highland Railway No. 79 and the last of the "Big Goods" class of locomotives, has been withdrawn from traffic and is being broken up at Kilmarnock Works. It was one of eight built in 1918-19 by Hawthorn Leslie & Company to the design of Mr. Christopher Cumming, then Locomotive Superintendent of the Highland. These engines were known as the "Big Goods" class, working heavy freight trains. In appearance they closely resembled the H.R. "Clan" class passenger engines, the main differences being smaller coupled wheels and slightly smaller diameter cylinders.

Sideboard

Professor Willis Jackson, of the Imperial College of Science, tells a story of the first world war. He boarded a tram in Manchester which had no indicator but carried a board along the side labelled "Trafford Park." The woman conductor, asked for a ticket to that destination, said: "We don't go there, love." "But it says so on the side of the tram." "Ah, but t' tram don't go sideways, love."—*From* "*The Manchester Guardian.*"

Doing the Spadework

On November 25, 1852, the era of the Great North of Scotland Railway was ushered in with the cutting of the turf for the line to Huntly, and later to Keith, Elgin, and farther on. That historic ceremony took place on the land of Sir James Elphinstone, at Westhall. . . . The lairds of all the adjoining districts turned out with their ladies, some travelling even from Banff and Elgin, quite a journey in those days. Aberdeen was also prominently represented, the contingent from the city including the Lord Provost, Town Clerk, and Chamberlain, and magistrates.

After the distinguished company had assembled at the home of Sir James Elphinstone a procession was formed, and, preceded by a military band, marched to the fenced off area, where Lady Elphinstone "neatly turned up the first turf, and laid it on a barrow which was rolled off by Master Elphinstone and emptied." The barrow, we are told, was of beautifully carved and polished oak, and bore the arms of the railway company and of Sir James Elphinstone.—*From* "*The Scotsman.*"

Plaque Recalls First Passenger

The Bowesfield Works of Metropolitan-Vickers-Beyer, Peacock Limited, described in other pages this week, manufactures the latest types of motive power close to a spot historic in the development of steam railway transport. We illustrate the nearby original booking office and stationmaster's house at Stockton of the Stockton & Darlington Railway. The plaque on the wall reads,

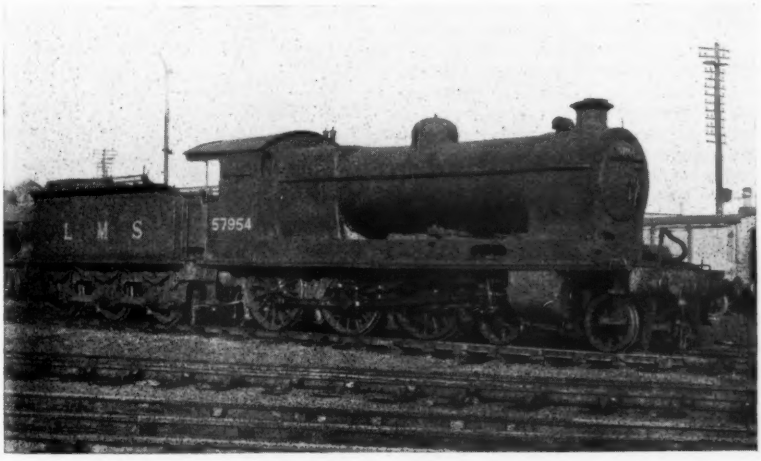
Original booking office and stationmaster's house of the Stockton & Darlington Railway

"Here in 1825 the Stockton & Darlington Railway Company booked the first passenger thus marking an epoch in the history of mankind."

Back-Stage

For everyone behind the scenes
Who scrubs and polishes and cleans,
Who sweeps the corridors and floors
And does the undistinguished chores;
For those who put a drop of oil
On the machinery of toil,
Who keep our cushions clean and sweet
In spite of countless careless feet;
For plumbers, shopmen, engineers
And those who make the cup that cheers;
For the old lift-man's morning smile
That helps us on the second mile;
For every optimist who taps
The carriage wheels—for years, perhaps
—And never finds a single crack
To mollify his aching back;
For eyes that sparkle in the rain
And bring the sunshine back again;
For all who sacrifice their ease
To hedge us round with decencies;
For every unrecorded act
Of kindness, sympathy and tact;
For little mercies manifold
That tinge a dreary day with gold;
For helping hand and word of cheer
Our thanks to all we've mentioned here.

A. B



The last of the Highland "Big Goods" class awaiting breaking up at Kilmarnock in November, 1952

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

BELGIAN CONGO

New Yard at Leopoldville

Within a few years Leopoldville will possess the most modern and extensive marshalling yard in Central Africa, when the present yard with an aggregate track length of 12 miles is replaced by a hump yard with 60 miles of track. The work, which will begin next year, entails the demolition of an entire village to make room for the new installations. The programme also includes the construction of workshops for the maintenance of 24 diesel locomotives.

SOUTH AFRICA

Johannesburg Railway Bridges

The Johann Rissik Bridge over the tracks of the new Johannesburg Station is now in service. It cost £220,000 and is one of seven large over-line bridges being erected as part of the new station scheme and the associated work of lowering the approach lines, described in our March 28 issue. As the tracks

The Johann Rissik bridge spanning the new Johannesburg Station

were lowered 13 feet it was possible to build the bridges almost at road level.

The total cost of the major bridges involved in this scheme is estimated at £840,000, which will be shared by the S.A.R. and Johannesburg City Council. The first to be completed was Claim Street Bridge. When the lines have been lowered to the required depth at this point, the bridge will be lowered by 4 ft. 6 in. and widened to a total of 75 ft.

Harrison Street Bridge was opened last February. It is 425 ft. long and has a 55 ft. roadway, with 10 ft. pavements. Its cost was £172,000. The Wanderers Street Bridge was opened in July and the King George Street Bridge was the next to be completed.

The Johann Rissik Bridge, the largest so far, is 993 ft. long. The roadway is 44 ft. wide, and there are two 14 ft. pavements. About 20,000 tons of concrete and 1,200 tons of steel went into its building. Work began in September, 1951, and the bridge was opened to traffic on November 10 last.

CANADA

Terrace-Kitimat Line

Work is in progress on clearing a right-of-way through a wilderness of trees and rock for the new 46-mile line of the Canadian National Railways from Terrace to Kitimat, the site of the Aluminium Company of Canada's $550,000,000 project. Kitimat is 90 miles east of Prince Rupert, the Pacific Coast terminus of a C.N.R. main line from Edmonton, on which Terrace is situated.

The work, which will cost $14,000,000, may be finished next year, but it is certain to be completed by August, 1954, when the Aluminium Company's smelter plant is scheduled to begin operation. Gangs will be busy, until the snow gets too deep, clearing the route from both the Terrace and Kitimat ends of the line. The first objective is to clear the first six miles out of Kitimat and prepare a bridge site, to give access to an area where where full gangs can work as soon as Spring arrives. About a dozen bridges will have to be built, including those over the Wadena and Little Wadena near Kitimat.

CHILE

Reorganisation of State Railways

The reorganisation and modernisation of the State Railways has been decided on. The financing of the most urgently needed locomotives and rolling stock will be put in hand without delay. The assistance of the State Department in Washington is to be sought with a view to obtaining experts to examine, jointly with Chilean engineers, the technical problems comprised in a report on the State Railways made by a Government commission. Later, the collaboration of Western European experts is to be enlisted in connection with the supply of equipment and rolling stock.

The report put at U.S. $123,000,000 (pesos 1,860 million) the sum needed to develop within seven or eight years the railway services adequate to the economic development of the country. The short-term programme envisages the acquisition of 83 locomotives, 19 railcars, 130 coaches, and 735 wagons, valued at $32,000,000. Authority for orders to be placed in France, Western Germany, Japan and the United States has been given. A further U.S. $3,000,000 will be spent on signalling installations and two steamers. In addition, a supplementary programme envisages the expenditure of U.S. $87,808,000 (pesos 1,940 million) on locomotives, rolling stock, machines and tools; signalling, bridging and permanent way equipment, and so on.

The lines between Alameda and Chilan, 250 miles south of Santiago, and the branch to Cartagena, are to be electrified. Agreement to this scheme has already been obtained from the World Bank, which is prepared to grant a credit of $40,000,000 for electric locomotives to be ordered abroad. A line is proposed in Aysen Province (in the south of the country) between the port of Aysen and Balmaceda, *via* Coihayque, to facilitate the export of local products by way of the Elephant Gulf. An alternative scheme is for a line some 150 miles long from Aysen along the Los Palos River *via* Puerto Cisnes to the Roosevelt Lake, and thence through the Palena Valley as far as the Lake of Yelcho.

MEXICO

Wage Increases

The National Railways have negotiated a new contract with railway workers three months before the current contract would have expired. Workers now receive an average increase of 61 pesos monthly (about $7), and the agreement has resolved all pending wage problems between management and labour. Lower-paid workers will receive the most benefits from the new contract, which came into force on November 16, when increased fares and rates were also introduced.

Changeover to Diesel Traction

The National Railways have drawn up a programme for acquiring diesel locomotives to replace steam locomotives as they are withdrawn. The plan would be completed by 1958.

By June, 1951, the diesel power totalled 168,000 h.p. and that of steam locomotives 1,188,800 h.p. By December, 1952, diesel power rose to 336,000 h.p. and steam power declined to 1,012,800. By 1958 it is hoped that diesels will provide 576,000 h.p. and steam locomotives 796,800 h.p. Most of the steam locomotives due for withdrawal have had more than 50 years of continuous service.

SWITZERLAND

Snow Protection on Oberland Railways

No winter services were operated on the Wengernalp Railway (Lauterbrunnen - Wengen - Kleine Scheidegg) for the first 16 years of its existence. The line was opened in 1893, and partly realigned and electrified in 1907. The first trains in winter reached Wengen (4,182 ft.) in 1909, Wengernalp (6,147 ft.) in 1912, and Kleine Scheidegg (6,760 ft.) in 1913; the services operated from Lauterbrunnen. Not until 1933 did

trains run in the winter between Grindelwald and Kleine Scheidegg, after the completion of costly though not always efficient protection work against snow drifts and sliding snow masses, not avalanches. To obviate the difficulties still hampering the regular operation of winter services on the Grindelwald-Kleine Scheidegg line a programme of realignment and snow protection work was begun in the autumn of 1951, involving an expenditure of more than fr. 1,000,000. In the autumn of 1952, a snow shed, 525 ft. long, and costing some fr. 250,000, was completed between Kleine Scheidegg and Alpiglen.

The Jungfrau Railway from Kleine Scheidegg to Jungfraujoch, although less exposed to the effects of snow and ice, because it runs mostly in tunnel, has recently completed a snow roof, 754 ft. long, between Fallboden and Eigergletscher (7,610 ft.) on an open section, to allow winter services to remain uninterrupted.

Two snow ploughs, electrically operated, are in service on the Wengernalp line. Both are fitted with wireless telephone installations enabling them to keep in contact when simultaneously operating at a distance from each other.

FRANCE

"Sud Express" to be Accelerated

At the European Timetable & Through Carriage Conference held at Nice in October it was decided to accelerate the "Sud Express" in the 1953 summer timetable, as recorded in our October 31 issue, though timings were not then finalised.

Over the French National Railways between Paris and the Franco-Spanish frontier at Hendaye/Irun, where there is break of gauge, the "Sud Express" from May next is to consist of Pullman cars and first and second class ordinary coaches. Southbound, it will leave Paris Austerlitz at 11.50 a.m., stop at Bordeaux at 5.5-5.10 and at Hendaye at 7.50-7.55, and reach Irun at 8 p.m.; the northbound French train will leave Irun at 11.22 a.m. and stop at Bordeaux at 2.5-2.10, due Paris 7.30 p.m.

No details are available of revised timings in Spain or Portugal, but overall times between Paris and Madrid and Lisbon probably will be cut by 3½-4 hr. The new timings will give connections both ways with the London-Paris "Night Ferry" *via* Dover/Dunkirk. Trains nos. 1 and 2, the present south and northbound "Sud Express," which includes Pullmans and all three classes of ordinary coaches, are to be slightly accelerated.

Publications Received

"King George V." By John S. B. Wright. Glasgow: Collins, 144 Cathedral Street, C.4. 6¾ × 10 in. 22 pp. Illustrations in colour and line. Price 6s. net.—A novel method of visual presentation, known as the Transart system, is used to build up a fully annotated picture of Western Region "King" class 4-6-0 No. 6000, *King George V.* A series of plates on transparent paper is arranged so that when one is turned on top of another, the parts represented on each fall into their proper places in a composite picture formed by the two together. A description of the main parts of a locomotive, how they work, and how they are assembled, follows the Transart section. The book, one of a series on "Modern Mechanical Wonders," provides the railway enthusiast with a useful introduction to locomotive matters, touching on many points of construction that could not be so readily explained without the visual methods here adopted.

Trains Annual, 1953. Edited by Cecil J. Allen. Hampton Court, Middlesex: Ian Allan Limited, Craven House. 9¾ in. × 7¾ in. 96 pp. Illustrated. Price 9s. 6d. net.—In its seventh edition "Trains Annual" well maintains the variety and interest of its predecessors. It includes thirteen articles, and a special feature this year is the high standard of colour plates. There is ample fare for devotees of the locomotive, who may compare the British standard designs and modern steam practice in France, follow the tests of a new diesel shunter, and share with one of the authors his recollections of engines which he has fired. History and topography are represented by a journey to the far north of Scotland, "Glasgow to the Clyde," and accounts of the Great Western's attempt to make Fishguard a Transatlantic port and the early days of the Southern Railway. The excitements of a volunteer signalman's work during the strikes of 1919 and 1926, the problems of District Control and the working of the "West Coast Postal" are ably conveyed. Railways in the Commonwealth are not neglected; there are descriptions of train travel in South Africa and Rhodesia and a tribute to the C.P.R. "Selkirk" locomotives, which diesels have now displaced in the Rockies.

Engines for Power and Speed. By F. E. Dean. Boys' Power & Speed Library. London: Temple Press Limited, Bowling Green Lane, E.C.1. 10 in × 7½ in. 81 pp. Illustrated. Price 9s. 6d.—The operation of the various types of engine in use today is explained in this book for young persons interested in prime movers. The descriptions cover water turbines, steam engines and turbines, petrol and diesel engines, gas turbines, jet engines, and the application of atomic energy.

A.V.C. Cables.—The Bestos cables described in this new booklet from British Insulated Callender's Cables Limited have an asbestos varnished-cambric covering that is suitable for use in high ambient temperatures or conditions in which severe overloads are possible. A degree of flexibility unobtainable in cables with a hard metallic sheath is provided. Sustained conductor temperatures up to 85°C. are permissible, and the cables can be insulated for voltages up to 6,600. They are supplied in single-core and multi-core types. Among the applications suggested are traction motor connections and wiring for diesel locomotive auxiliaries.

Morganite Unit Seals.—Details of the Morganite positive drive unit seal are contained in an illustrated leaflet issued by the Morgan Crucible Co. Ltd. The seal, which consists of a Morganite carbon sealing ring, on to which is bonded a flexible rubber casing, containing a stainless steel spring ensuring adequate sealing pressure, is recommended for a variety of fluids within the heat and chemical resistance of synthetic rubber; working temperature should not exceed 100° C. The unit can rotate with the shaft, the carbon ring sealing against a stationary counterface, or it can remain stationary in its housing with the counterface rotating. The seal is designed for use in small low pressure centrifugal pumps or other rotary equipment.

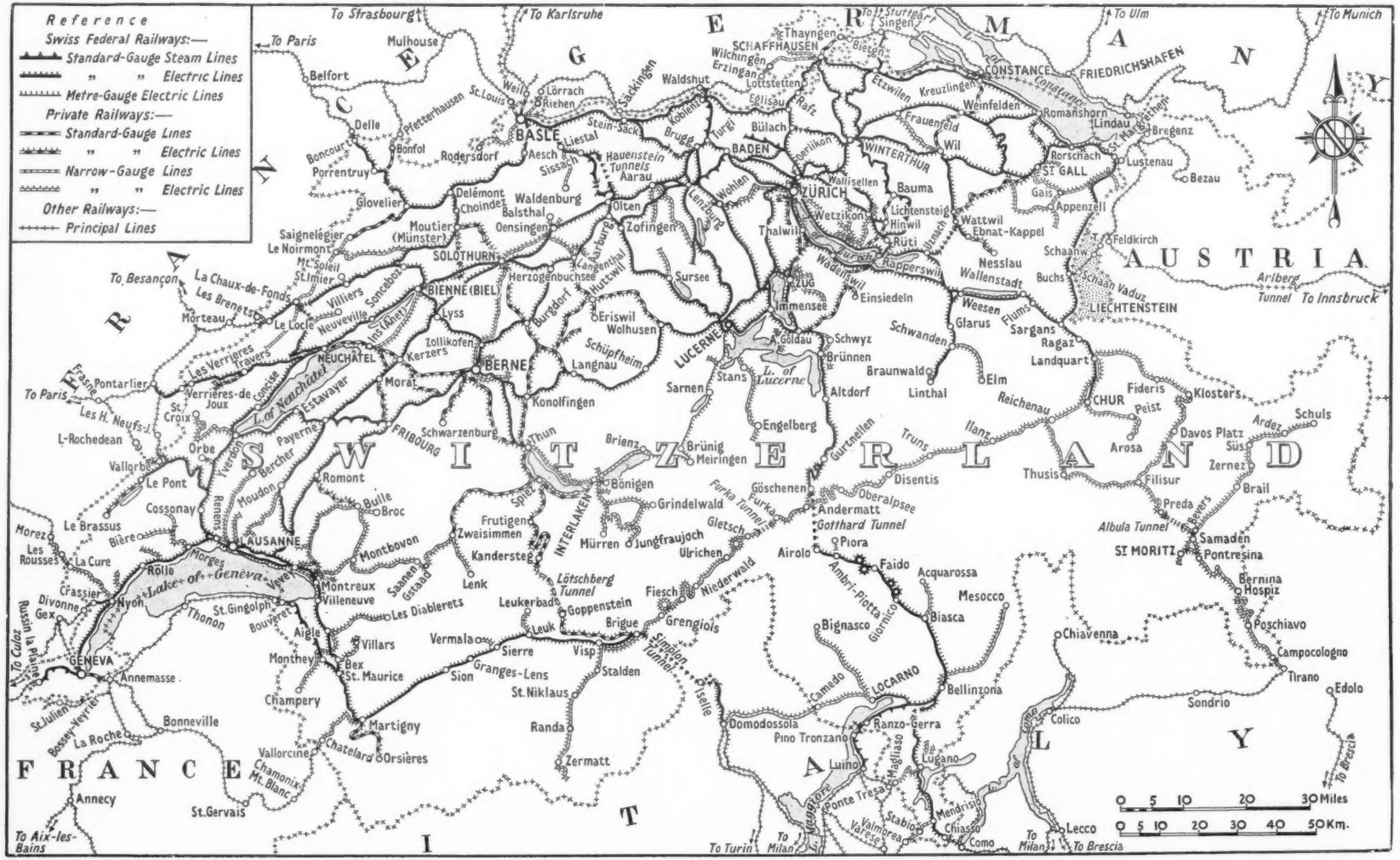
X-Ray Accessories.—An illustrated catalogue issued by Solus-Schall Limited describes diaphragms and applicators for X-Ray tubes, measuring instruments, fluorescent and intensifying screens, dark room and processing equipment, and pentrameters for industrial radiography. A description of each accessory and its uses is given, together with code numbers to assist intending purchasers.

Engineers' Small Tools.—Particulars of many engineers' small tools and gauges are given in catalogue No. 52, recently issued by Moore & Wright (Sheffield) Limited. The range includes standard and special purpose micrometers, including designs with Braille register, bevel protractors, bench micrometers, and measuring sets, surface gauges, combination sets, screw pitch gauges, callipers, toolmakers' cabinets, and so on. A price list is included in the folder. For easy reference to intending purchasers each tool is given a reference number.

Coronation Celebrations.—The General Electric Co. Ltd. has issued an illustrated brochure showing decorative illuminated devices, floodlighting and window lighting equipment, lamps, sound equipment, and accessories for use in connection with the Coronation celebrations. Many effective installations are illustrated, among them being the entrance to Waterloo Station as floodlit during the Festival of Britain. An interesting form of display lighting, already used for some railway announcements, is suggested by a list of luminescent powders, dyes, and paints for activation by ultra-violet light from Osram Black Glass lamps.

XUM

Railway Nationalisation in Switzerland



State and private railways in Switzerland, showing gauges and sections electrified and principal connections with railways in contiguous countries

Railway Nationalisation in Switzerland

Gradual absorption based on purely economic and financial grounds

(From a correspondent)

THE Swiss railway system is made up of the Federal Railways totalling 1,825 miles and the private railways, 1,740 miles, distributed as shown on the accompanying map. Of the private systems 470 miles are standard gauge, 915 miles narrow gauge, and the rest rack, cable, and light railways; they are operated by 80 companies. In the main, the Alps, apart from the Lausanne-Brigue-Simplon and the Gotthard lines of the Federal Railways, are accessible only by private railways. Of the 2,260 stations in Switzerland, 830 are owned by the Federal Railways and 1,430 by private railways. The traveller does not perceive the large number of undertakings as the railway law of 1872 obliges the companies, among other things, to publish a combined timetable, work out connections in the interest of the traveller, and to make the conveyance of passengers, goods, and livestock possible from all stations irrespective of the existence of separate transport undertakings.

The private railways are only in legal form private enterprises, as most of their shares are held by the Federation, cantons, districts, and municipalities. This has not always been so but is the result of financial depreciation. The Federal Railways were formed by nationalisation of private lines. The Federation has never built railways, but has constantly improved those taken over from the private companies, as shown by the enlargement of stations, the increasing extent of double track, (from 19 per cent of the total in 1909 to 41 per cent by the end of 1951), the introduction of electric traction, and improvements in operating.

Start of Nationalisation

Railway nationalisation was carried out in accordance with a law of 1897 and a vote of the Swiss people in 1898. The Federal Railways began their existence on January 1, 1902. In 1902 and 1903 four of the large private railways were nationalised, followed by the Gotthard Railway in 1909 and two private railways of less importance in 1918 and 1922. Nationalisation did not affect main lines only, but also smaller enterprises that had been amalgamated already with larger companies. Several of the smaller lines therefore became also property of the Federation. For that reason the Federal Railways system includes, for example, the metre-gauge Brünig line from Lucerne to Interlaken, with a rack section of 10 miles and a gradient of 1 in 8·3.

The decision of the Swiss people in 1898 on nationalisation of railways had nothing to do with the doctrine of nationalisation as a socialist measure. The question of State or private railways had been raised as early as 1850, when only the 14-mile Zurich-Baden line existed. When Robert Stephenson and H. Swinburn were requested by the Swiss Government to give their opinion on the building of railways in Switzerland, they recommended State railways. Until 1898 the question of private or State railways remained of considerable interest. The disadvantage of a private system was mainly that private enterprise was interested first in building commercially profitable lines and the working too would be subordinated to financial interests. At the same time, it was feared that the interests of national defence would not be guarded and that foreign moneylenders might eventually control the companies. Finally in 1898 the idea of State railways triumphed as the private companies were unwilling to fulfil their duties according to the law of 1872.

By the law of 1897 the Federation would have been empowered to take over more private railways, but after the absorption of the Gotthard Railway further nationalisation was not discussed until 1949 when the problem again became acute. This time the request was not made by political parties or by the public, but by the companies themselves, or, rather their owners, the cantons, districts, and municipalities, which are demanding that their railways shall be taken over by the Federation, or at least their tariffs approximated to those of the Federal Railways. Because of the shortness of the private railway lines, the unequal competition of growing motor traffic is more keenly felt by the private companies than by the Federal Railways. The financial situation of most of these lines as well as of the Federal Railways, is becoming worse.

The Federal Railways also include a number of lines that do not pay, but the Federal Government shoulders the deficit. The burden is most keenly felt therefore by those living in districts served by private lines, for they are paying not only for their railway but have also to meet a possible deficit of the Federal Railways in the form of taxation. They are furthermore at a disadvantage because the private railways have higher tariffs than the Federal Railways. On January 1, 1943, the Federal Railways abolished all higher rates on the basis of longer distances, so that even the Brünig line with its steep gradients has no higher rates than any other line of the Federal Railways.

The demands of nationalisation are not based on ideological grounds in Switzerland. Although the programme of the Swiss Labour Party adheres to the principle that all railways important to the economy of the country should be taken over by the Federation, it is not the Party which has brought up the question of further nationalisation, and it is not even showing special activity in discussing it. Nor is it a question of inadequacy of the private railways that could be regarded as a reason for their nationalisation, for it is generally agreed that they perform their task as well as the Federal Railways.

Report of Commission

In December, 1949, the Swiss Government appointed up a commission to examine the further nationalisation of railways. In May, 1952, it made a full report which was handed over to those interested in August, 1952. The commission recommends that for political reasons, particularly to settle the differences of tariffs, there should be further nationalisation. It proposes to nationalise 17 more private railways totalling 740 miles. Because of financial considerations they should be nationalised gradually. For political reasons and because of the financial situation of the mountainous Canton of Grisons the nationalisation of the Rhaetian Railway is considered urgent. That of the Berne-Loetschberg-Simplon-Railway should follow, mainly for traffic reasons.

The commission is aware at the same time that nationalisation will not solve the difficulties of the Swiss private railways, but merely transfer their problems to the Federation. It also recognises that new problems will arise when the Federation becomes the owner of most lines. The cantons, relieved of their financial responsibility for the railways, could give greater support to the upkeep of the roads and thus increase the competition of motor traffic. The foregoing are only the points of view of the commission and do not mean immediate nationalisation. For the next few years the Federal budget will be strained by the expenses of armament. It will also be difficult for the Federation to take over railways which can still support themselves for a while, even though they may not show profits, as, for instance, the Rhaetian Railway. On the other hand the Canton of Berne will not agree to give up the Loetschberg Railway, which because of international goods traffic has an operating ratio of 84·8, if the Federation is not willing to take over at the same time other lines in which the Canton of Berne is interested but have operating ratios of 92·5, 106·3, and 108·1. The Government therefore is trying to find means other than nationalisation to keep the railways going and to balance the differences of tariffs. For these reasons alone further nationalisation is not expected in Switzerland for some time.

XUM

Postwar Production of Electric, Diesel-Electric, and Gas-Turbine Locomotives

Organisation of the Bowesfield works of Metropolitan-Vickers-Beyer, Peacock Limited

A RECENT addition to the industrial activities of Stockton-on-Tees is that of the production of electric, diesel-electric and gas-turbine electric locomotives at the Bowesfield Works of Metropolitan-Vickers-Beyer, Peacock Limited, a company jointly owned by the two companies represented in its name.

With its principal works at Trafford Park, Manchester, and a traction motor factory at Attercliffe Common, Sheffield, Metropolitan-Vickers since its formation some 50 years ago has played a major part in the development of railway electrification in this country and overseas.

The electrified systems of the Southern Region, British Railways and the London Transport Executive, which together form the most extensive area of electrification in this country, comprising some 2,313 track miles, are extensive users of Metropolitan-Vickers electrical equipment. The firm has provided rolling stock and equipment for the electrified systems in Australia, India, South Africa, South America and elsewhere.

The firm of Beyer, Peacock & Co. Ltd., with its principal works at Gorton, Manchester, was established in 1854 and has been intimately associated with the evolution and development of the steam locomotive for nearly 100 years, including the well-known Beyer-Garratt articulated locomotives of which they are the patentees. Beyer, Peacock steam locomotives are to be found all over the world and during the last 20 years the company has designed and manufactured locomotives of very great power, many of the largest steam locomotives now operating on the world's railways having been built at the company's Gorton Works.

Metropolitan-Vickers-Beyer, Peacock Limited was formed in 1949 for the production of locomotives other than steam, that is, electric, diesel-electric and gas-turbo-electric locomotives, with the express purpose of using to the best advantage the many years of designing and manufacturing experience of electrical and mechanical railway equipment of the parent firms, an arrangement having obvious advantages.

A nucleus of technical staff was transferred to the new works with a view to forming the basis of future organisation. Because of a very substantial initial order book which included 24 50-ton, metre gauge 1,070 h.p., 3,000 V. d.c. electric locomotives for Brazil (14 for the Rede Mineira de Viacao, and 10 for the Rede de Viacao-Parana-Santa Caterina), it was necessary that production was placed on an organised basis as soon as possible.

Further orders include 40 electric locomotives of 3,780 h.p. hourly rating for New South Wales Government Railways for coal traffic on the Sydney-Lithgow line, and 48 1,100 h.p. main-line diesel-electric locomotives for the Western Australian Government Railways, the prime mover being a Crossley two-stroke loop-scavenge engine; reference to these orders was made in our October 20 and 27, 1950, issues.

The Bowesfield Works extends over an

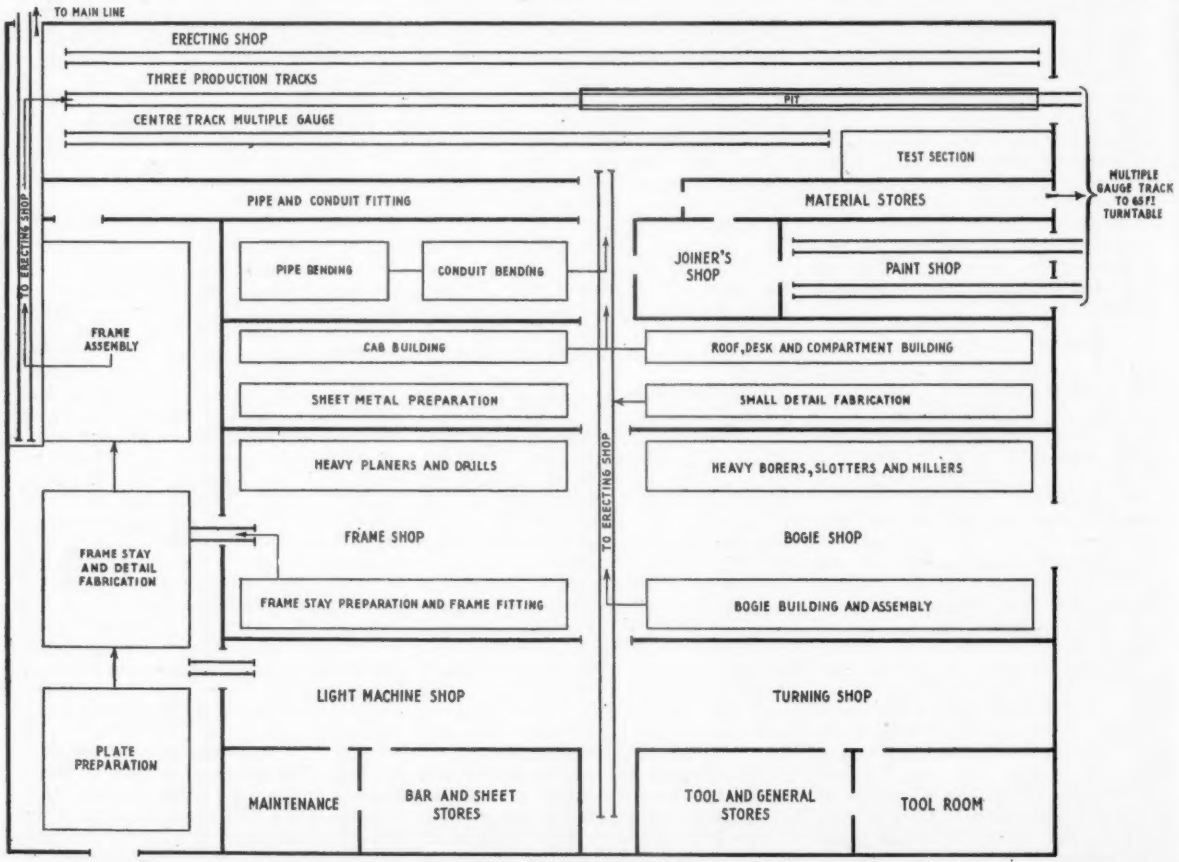
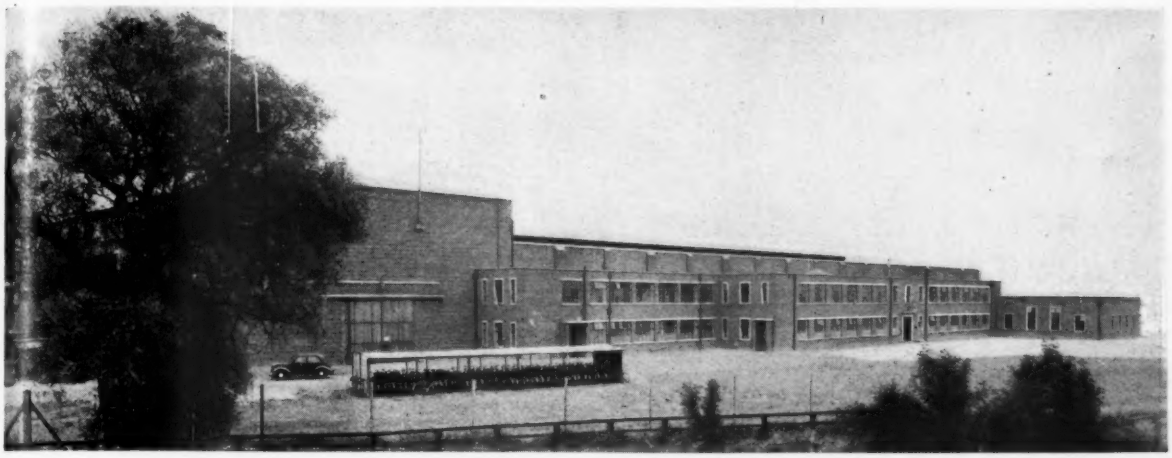
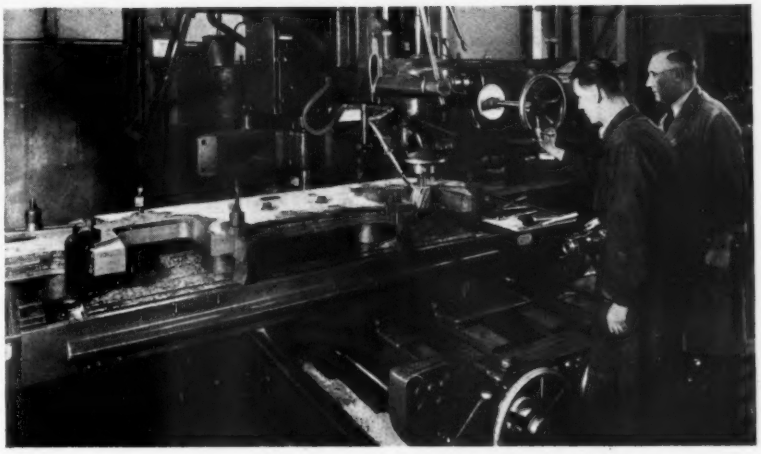


Diagram showing the layout of the Bowesfield works



Exterior view of the Bowesfield Works



Profiling Western Australian Government locomotive bogie frame plates on a Herbert No. 28A vertical miller

area of considerable extent, and includes extensive factory buildings erected since the termination of the recent war. An extension added to these buildings is a long bay which is specifically designed for the erection of the largest and most powerful locomotives.

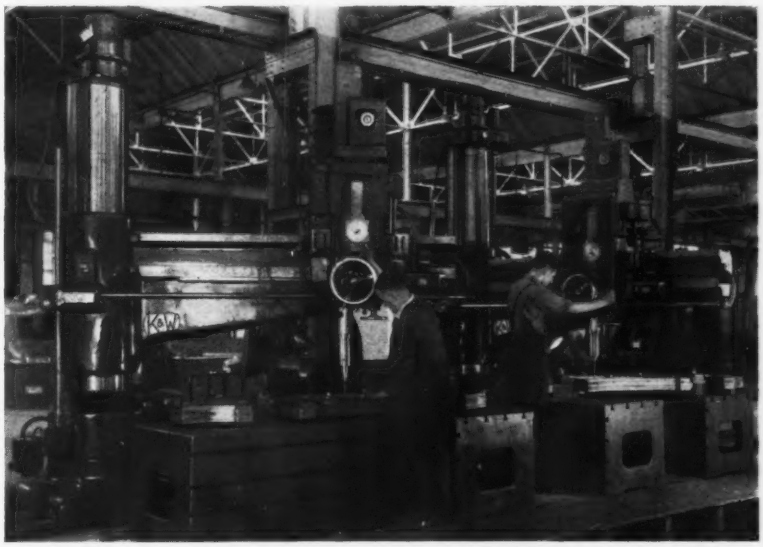
Further extensions are contemplated, but for the present effort has been concentrated on the production aspect to such an extent that the first 14 locomotives for Brazil are already completed and delivered, and the remaining 10 are in an advanced stage of construction. Work is now proceeding on the contract for the 48 diesel-electric locomotives for the Western Australian Government Railways.

The installation of new machine tools and equipment is proceeding apace, and includes planing, slotting, shaping, boring and grinding machines, and also welding manipulators for dealing with underframes, frame stays and fabricated engine cabs, and so on. The workshops organisation, production planning and progress, jig and tool design department, together with the stores organisation, are being further developed. The works are responsible for the machining of components, fabricating and welding of underframe parts, frame stretchers, driving cabs, body frames and control gear assembly, together with the erection of both the mechanical and electrical parts.

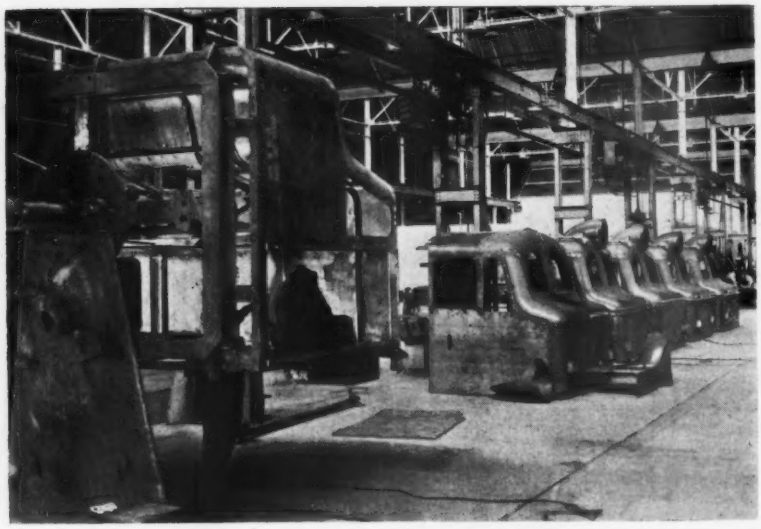
Works Layout

The works are laid out on the sub-assembly erection principle, each department being as far as possible self-contained. The equipment includes machine tools and equipment applicable to the operations carried out in its particular section, a feature which lends itself to saving in time in handling materials and reduces the amount of labour employed on non-productive work to a minimum.

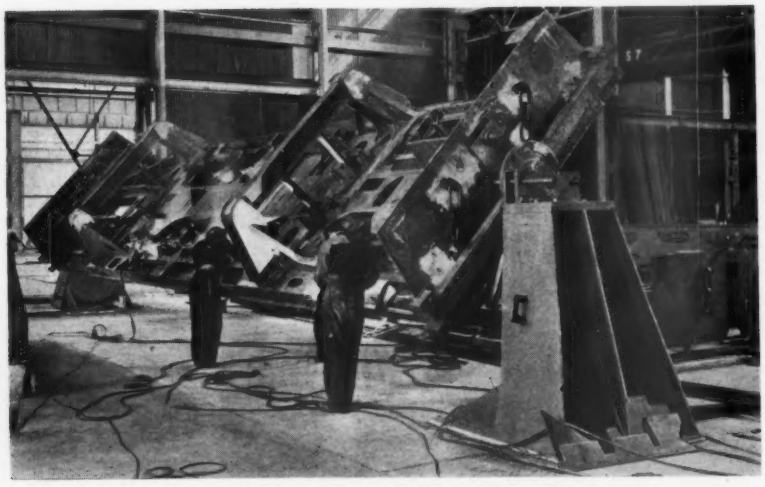
Raw materials are received and allocated to specific works orders and are



Drilling bogie frame plates on 32-ft. traverse bed, Kitchen & Wade radial drills



Cab assemblies for the Brazilian locomotives



Brazilian locomotive underframe being welded on a manipulator

Assembly line for 50-ton metre-gauge locomotives for Brazil

issued to the various process shops according to production requirements. The planning department controls the methods of production through the medium of operation schedules which contain all relevant information, materials, number required, part number and jig or fixture required. Components are manufactured on the quantity basis to avoid breaking down machines more than necessary; operation schedules are prepared from detail drawings of the locomotives on order. All details and sub-assemblies are subject to rigid inspection.

Movement of Materials

The movement of materials is controlled by the progress department, the basis being related to the locomotive building programme in the erecting shops. Sub-assemblies go direct to the particular department concerned until required for final erection. The light machine shop, turning shop and plate preparation section are adjacent to the bar and plate stores.

Plate work for the fabrication of frame stays, bogie stretchers, and so on, are first cut to size by guillotine or oxy-gas burning machines and edged planed in batches on a plate edge planer manufactured by the Scottish Machine Tool Corporation Limited, while plate levelling is done on a set of Bennie 8-ft. rolls. The equipment also includes a Craig & Donald 300-ton press brake for plate flanging.

The underframes, bodies and bogies of the Brazilian locomotives are entirely of welded construction. The fabrication of the sub-assemblies is carried on in separate departments. The underframes are built up of rolled steel channels, angles and plates, and are first assembled on fixture in three sections in the frame shop, which is adjacent to the frame stay preparation and fitting shop.

The sections are then sent to the frame assembly department for assembly on a special fixture, and finally welded. Specially designed jigs are used for setting and welding underframe details, buff link brackets, platforms, and so on. Suspension brackets of the bogies for the Brazilian locomotives are bored in position by means of a special fixture, the boring bar being driven by a 5 ft. 9 in. Asquith portable drilling machine.

Metropolitan-Vickers welding manipulators are used extensively for all sub-assemblies. All fabrication assembly is carried out on jigs designed and made in the factory to suit the particular component. After fabrication the frame stretchers and so on are machined in batches on a Swift-Summerskill 16 ft. × 5 ft. four-headed planer. Drilling of the frame plates is carried out on two Kitchen & Wade radial drills traversing on a 32-ft. bed.

The bogie assembly shop is adjacent to the frame shop. The department is self-contained. The machines include a type 28A Herbert vertical miller for

(*Continued on page* 665)

Building Electric, Diesel-Electric, and Gas-Turbine Locomotives

Locating jig being machined on a Newall jig borer

Edge-planing frame stay plates

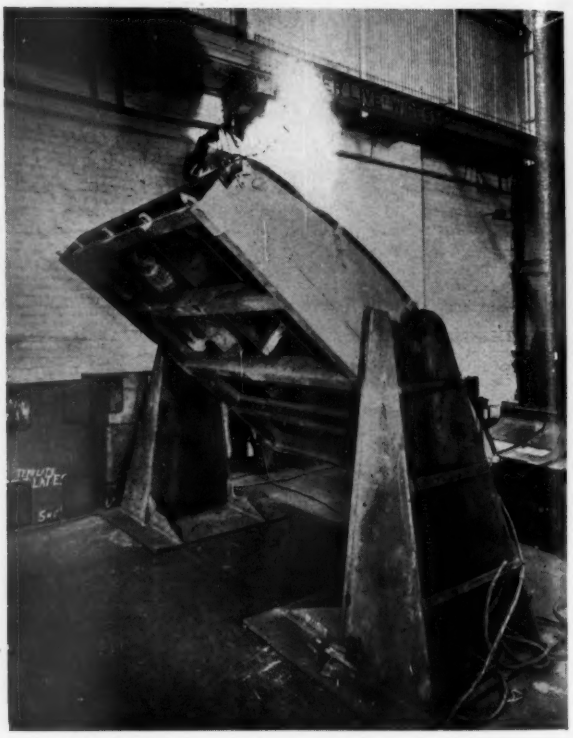
Grinding axlebox liners on a Churchill vertical grinder

Flanging plates on a Craig & Donald press brake

XUM

Building Electric, Diesel-Electric, and Gas-Turbine Locomotives

Welding a fabricated frame stay on a six-ton manipulator



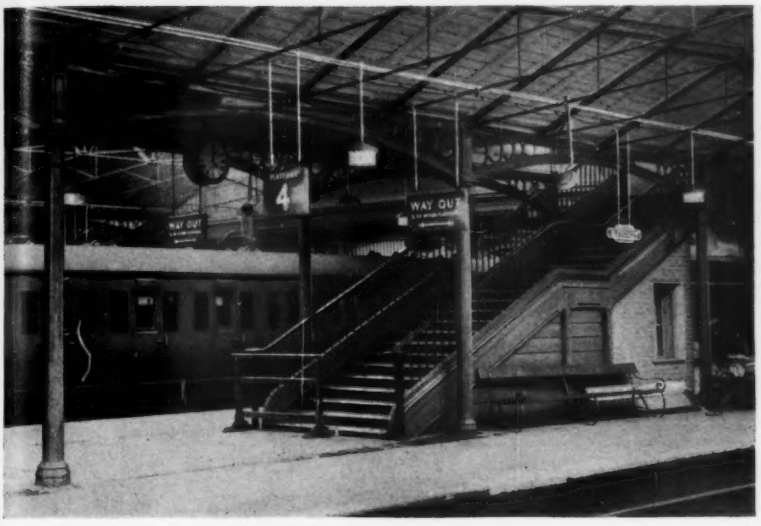
Welding a locomotive roof section on a manipulator

Stud welding a frame stay

Assembly fixture used for fabricating frame stays

Modernisation of Bletchley Station, L.M.R.

Extensive improvements carried out to the accommodation for the public and staff



No. 4-5 island platform, showing new signs

A SCHEME of improvements costing some £20,000 has been completed by the London Midland Region at Bletchley Station. The station is 46¼ miles from London on the Euston-Crewe main line and is the junction for the Oxford branch to the west and the Bedford and Cambridge branch to the east. It is a principal calling point for main-line expresses and considerable transfer of passenger train traffic, including postal services, takes place. In addition, the London outer suburban steam services terminate there, and there is a good residential traffic.

Station Layout

There are three island platforms, and two outside (single-side) platforms serving the Oxford and Cambridge branches respectively. These branch platforms are below standard height, and it is not practicable within economic limits to adjust this defect. One of the principal deficiencies is the length of the main line platforms which can accommodate only eight or nine coaches, and trains therefore have to draw up. Here again it is not practicable to remedy this defect without considerable expense because the whole track layout, which is restricted by the junction at the north end of the Cambridge branch and that at the south end of the Oxford branch, would be affected.

The station is entered by an approach road on the down side of the line leading from the main highway which passes underneath the railway at the south end of the station. The main buildings at the entrance are all of stone construction. Their layout was outmoded, and the accommodation on the island platforms required complete modernisation.

The need for improvement at Bletchley was long felt, and the Station Improvements Committee appointed in 1949 gave top priority to the modernisation of the station. Extensive alterations were subsequently put in hand at a total estimated cost of £17,880, including £2,881 for part of the scheme affecting the refreshment room, a commitment of the Hotels Executive.

The existing portico of the station entrance was not disturbed, but the stonework and other dressings were restored. The internal layout was revised to allow the booking hall to be extended and provide separate booking and inquiry offices. The booking office was formerly a part of the parcels office and cloakroom; this accommodation has also been rearranged by transferring the permanent way office staff to other accommodation on platforms 6 and 7.

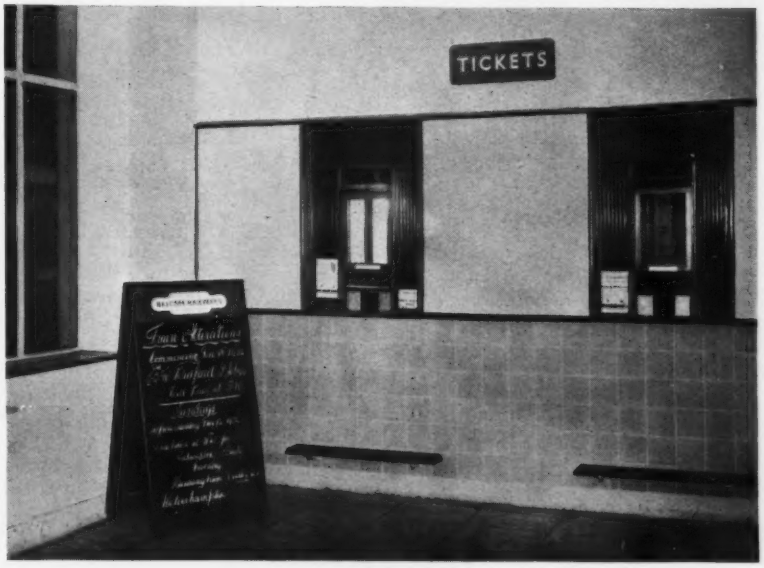
Re-designed Entrance

The re-designed station entrance incorporates three pairs of glazed swing doors, opening into the enlarged booking hall. A new ticket office front takes up one side, and on the opposite wall is a new train indicator and ticket inspectors' room. Facing the approach road next to the new parcels despatch room is a public inquiry and parcels office.

No. 1 platform is rarely used by the public, almost all passengers using the station having to negotiate the footbridge. The staircase adjacent to the station entrance has been remodelled to give easier access and lead directly from the booking hall instead of from the platform as formerly. The ticket collector is now stationed at the foot of the staircase. The staff lavatories were modernised and made available for public use.

Before the alteration, much of platform 1 was congested with cycles, for which no other storage space was available. Two new cycle storage sheds have been provided, one, for the public and accommodating 50 cycles, towards the south end of platform 1, and the other, for the staff, in the goods yard and holding 80 cycles.

The overbridge was unattractive in appearance. It has been re-surfaced with asphalt and the balustrades have been



Front of ticket office

General view of platforms and improved buildings

boxed in, giving more advertising space. The blackout has been removed to provide more natural light.

Nos. 4-5 island platforms serve the up fast line (No. 4 platform). The small wooden refreshment room has been replaced by a brick-built combined refreshment and waiting room, with large observation windows, and the station-master's office has been transferred to the former general waiting room on the same platform. The ladies' toilet accommodation on this platform has been remodelled, and the gentlemen's lavatory accommodation at the north end of island platforms 2-3 and 4-5 has been rebuilt.

On platforms 6-7 the porters' room and the lavatory accommodation have been improved. A former female staff room has been adapted for use by the permanent way staff transferred from accommodation on platform 1.

Electric lighting has replaced gas throughout the station; formerly, only the block of buildings on platform 8 was electrically lighted.

At the same time, the whole of the station premises has been repaired and repainted. The finishes to the new booking hall, lavatories, and refreshment room are those to be adopted generally in the London Midland Region. The work has been executed by Griggs & Son Ltd. to the designs and under the supervision of the Architect's office of the Civil Engineer's Department.

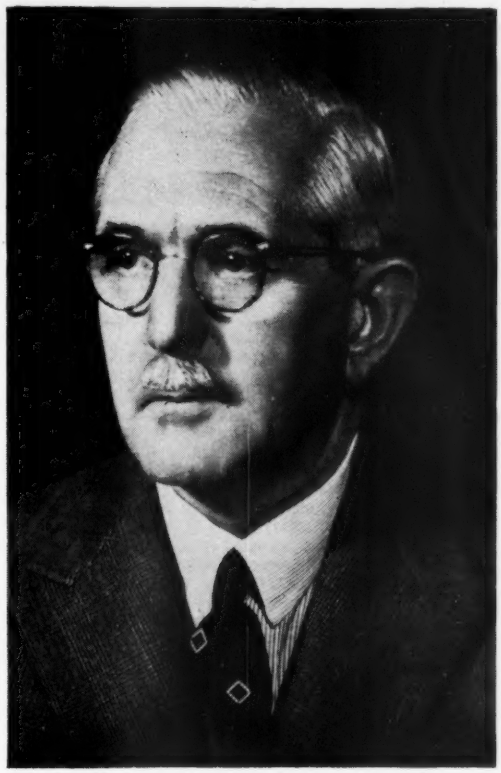
The signs and traffic and commercial advertising display have been modernised throughout by the Public Relations & Publicity Department, to whose requirements the new train indicator has also been provided.

Station entrance, with original stonework retained but restored

RAILWAY NEWS SECTION

PERSONAL

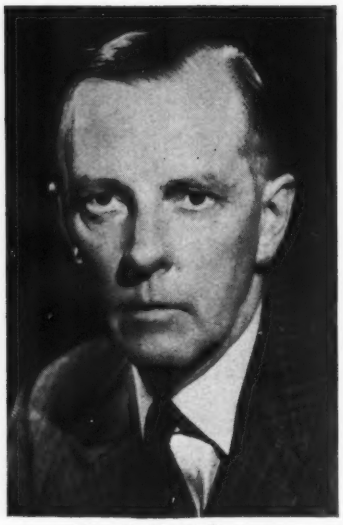
Sir Arthur Griffin, K.C.I.E., O.B.E., B.Eng., General Manager, Rhodesian Railways, who, as recorded in our December 5 issue, is to become Chairman of the Rhodesia Railways Limited, as from January 16, 1953, went to India in 1911, when he was posted to the North Western Railway. As an officer in the Royal Engineers Special Reserve, he was recalled to military duty and left India in 1914. In 1916 he was transferred from the European to the Mesopotamian front, where he served under the Railway Directorate, and was appointed a Deputy Assistant Director of Railways. In 1918 he was transferred to the War Office for work in connection with the Transportation Commission to the Peace Conference in Paris. His services were lent to the Civil Government of Mesopotamia in 1920, and he served there as Deputy-Director of Railways until June, 1924, and subsequently as Director. During his war service Sir Arthur Griffin was twice mentioned in dispatches; he was awarded the O.B.E. (Military) in January, 1919. He returned to India in 1925, and was appointed Divisional Engineer, Karachi, North Western Railway; later he was placed on special duty there in connection with the design and layout of railways in the port area. In 1930 he was appointed Principal of the Walton Training School for N.W.R. staff. For two periods—July-September, 1931, and April-November, 1933—he officiated as Deputy Agent of that system. In November, 1934, he was made Divisional Superintendent at Rawalpindi, and two years later at Delhi. In May, 1938, he was appointed Secretary, Railway Board (Government of India), which position he relinquished to become General Manager, N.W.R., in 1940. When Sir Arthur Griffin received his knighthood in the New Year Honours, 1943, he became the first General Manager of the N.W.R. to receive that honour during tenure of office. He was appointed to succeed Sir Leonard Wilson as Chief Commissioner of Railways in September, 1944. During August to October, 1945, Sir Arthur Griffin officiated for Sir Edward Benthall as Member for War Transport of the Viceroy's Executive Council while the latter was on leave. In the October, 1945, issue of the *North Western Railway Magazine*, Sir Arthur Griffin was referred to as "the only man in the whole history of Indian railways ever to serve on the Viceroy's Executive Council. He was made a K.C.I.E. in the King's Birthday Honours, 1946, and is an Officer of the Order of St. John of Jerusalem. In 1947, Sir Arthur Griffin was elected a Director of Rhodesia Railways Limited, and in April of the same year he became General Manager & Resident Director in Rhodesia. In 1948 he became Chairman of a sub-centre of the South Africa Centre of the Institute of Transport in Rhodesia.



Sir Arthur Griffin
Appointed Chairman, Rhodesia Railways Limited

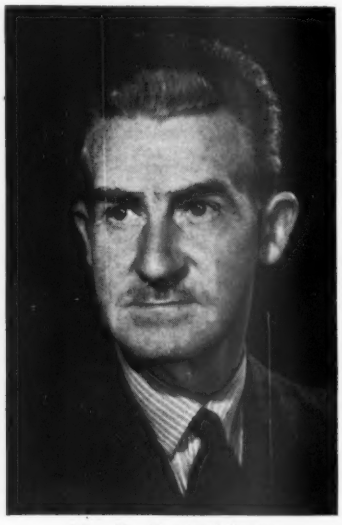
Lt.-Colonel H. B. Everard
Appointed General Manager, Rhodesia Railways

Lt.-Colonel H. B. Everard, D.S.O., A.M.I.C.E., Chief Officer Engineering (Maintenance), Railway Executive, whose release by the Railway Executive, and with the approval of the British Transport Commission, was announced in our December 5 issue, is to take up the appointment of General Manager, Rhodesia Railways. Colonel Everard was born in 1897 and educated at Marlborough and Trinity College, Cambridge; his entrance to the University was deferred owing to the outbreak of war in 1914. Joining the Rifle Brigade as 2nd Lieutenant in 1915, he saw service in France, was promoted Captain in 1916 and was wounded on the Somme. During 1918 he was engaged at the Foreign Office under the late Lord Balfour and Lord Curzon of Kedleston, and was sent to Egypt and Palestine in 1919, being demobilised on his return to England at the end of that year. He then entered Trinity College, Cambridge, taking an Engineering Degree. In 1922 Colonel Everard joined the Midland Railway as a cadet under Mr. James Briggs, Chief Engineer, and was posted to the New Works Department. In 1924 he was given the position of Resident Engineer on the construction of several new colliery branches and subsequently supervised the construction of the Mid-Notts. Joint Lines. In 1931 he was appointed Chief Assistant to the District Engineer, Derby (South); three years later he was appointed District Engineer, Derby (South), and became



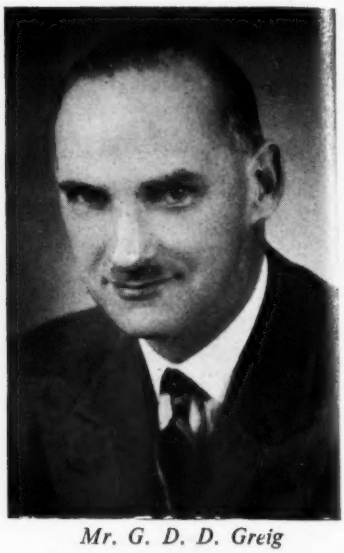
Mr. J. R. Dallmeyer

Appointed Assistant Engineer (Works Maintenance), Eastern Region, Kings Cross



Mr. C. G. Reddington

Appointed District Engineer, Kings Cross, Eastern Region



Mr. G. D. D. Greig

Appointed District Engineer, Inverness, Scottish Region

Senior Assistant (Permanent Way), Chief Civil Engineer's Department, L.M.S.R., Watford H.Q., at the end of 1944. Owing to the international situation about the middle of 1939, he was released by the railway company to rejoin the Colours, when he proceeded to form the 2/5th Battalion, the Sherwood Foresters. Shortly after the outbreak of war he proceeded with his battalion to France, and was taken prisoner in 1940. He was awarded the D.S.O. and mentioned in despatches for gallantry in the field. He resumed duties at the beginning of September, 1945, as Assistant Engineer (Permanent Way), and was appointed Engineer (Permanent Way) from July 1, 1947. In January, 1949, he was promoted to the position of Chief Officer Engineering (Maintenance), Railway Executive. Colonel Everard was elected President of the Permanent Way Institution in 1951 and re-elected in 1952.

Mr. J. R. Dallmeyer, B.Sc., M.I.C.E., District Enginer, Kings Cross, Eastern Region, who, as recorded in our November 21 issue, has been appointed Assistant Engineer (Works Maintenance), Eastern Region, Kings Cross, was educated at Loretto School and Leeds University. During the period 1918-19 he served as a Midshipman in the R.N.V.R., and entered the service of the North Eastern Railway as a pupil in 1921. From 1923 to 1926 he was a pupil, and later an Engineering Assistant, with the Southern Railway, and served as Assistant District Engineer, Palestine Railways, from 1926 to 1936, during which time he acted as District Engineer for over four years. In 1936 Mr. Dallmeyer entered the service of the London & North Eastern Railway at Kings Cross and was appointed Parliamentary & Surveying Assistant in 1939. In October, 1942, he was appointed District Engineer, Ipswich, which post he held for six years, when he transferred to the position of District Engineer, Hull. He became District Engineer, Kings Cross, in July, 1950.

We regret to record the death, on December 1, of Mr. A. J. Chase, formerly Deputy Locomotive Superintendent, North Western Railway, India.

Mr. C. G. Reddington, District Engineer, Ipswich, Eastern Region, who, as recorded in our November 21 issue, has been appointed District Engineer, Kings Cross, Eastern Region, joined the London & North Eastern Railway at Kings Cross in 1925, and in 1927 went to the Maintenance Office at Liverpool Street. In 1929 he joined the staff of the District Engineer, Kings Cross, where he was engaged on the remodelling of Kings Cross Locomotive Depot; and in 1935 he transferred to the Construction Office and was concerned in schemes for the Great Eastern electrification. In 1937 he was appointed as an engineering graduate. During the early part of the war Mr. Reddington was employed on new works on the Great Eastern electrification scheme and also served at the temporary headquarters at Hitchin and Peterborough. In 1940 he was Acting Assistant District Engineer, Nottingham, and dealt with new loops on the Great Central Section, and other matters. In 1942 he became Senior Assistant in the District Engineer's Office, Hadley Wood, taking charge of the drawing office; and in 1943 he was appointed Assistant District Engineer, Stratford, where he remained until October, 1948, when he became District Engineer, Ipswich.

We regret to record the death, on Monday, December 8, of Mr. E. E. Taylor, of William Cory & Son Limited.

We regret to record the death in October of Mr. J. S. H. Grant, a former Vice-Chairman of Rhodesia Railways Limited.

We regret to record the death, on October 9, of Mr. W. B. Shelton, Divisional Operating Superintendent, Crewe, London Midland Region. The funeral will be at Marylebone Crematorium on December 15, at 11.30 a.m. No flowers by request but donations to the Railway Benevolent Institution.

We regret that, in recording the death of Mr. Frank Gurney, in our December 5 issue, he was described as Assistant Manager, Home Sales, Metropolitan-Vickers Electrical Company Limited, instead of Manager, Home Sales.

Mr. G. D. D. Greig, Assistant (Maintenance) to the Chief Officer Engineering (Maintenance), Railway Executive, who, as recorded in our December 28, issue, has been appointed District Engineer, Inverness, Scottish Region, joined the Caledonian Railway in 1919 as a pupil and, after training in the New Works and Permanent Way departments, was appointed an Assistant in the London Midland & Scottish Railway Divisional Engineer's Office at Glasgow. In 1926 Mr. Greig became an Assistant in the District Engineer's Office of the L.N.E.R. in Glasgow. During the war he was engaged in railway new works necessitated by the construction of Military Port No. 1 at Faslane, and in other new works on the West Highland Railway. In 1948, Mr. Greig was transferred to Aberdeen as Assistant to the District Engineer, subsequently becoming Assistant District Engineer. For a time in 1948 he was acting District Engineer, Carlisle, and in 1950 was Chairman of the Committee appointed by the Civil Engineer's Committee to consider relaying methods and costs on all regions. In 1951 he was transferred to the Railway Executive as Assistant (Maintenance) to the Chief Officer Engineering (Maintenance).

We regret to record the death, on November 21, of Mr. S. W. Parrott, A.M.I.Mech.E., a Director of Hale & Hale (Tipton) Limited.

Mr. T. G. Creighton, M.I.Mech.E., Director of Mechanical Engineering & Stores, Railway Division, Pakistan Government, Karachi, retired from service on October 2.

We regret to record the death at Streatham, on December 4, of Lt.-Colonel H. McKenzie Kirkby, M.C., D.C.M., senior partner in the firm of Messrs. Dolby & Williamson, Consulting Engineers. Colonel Kirkby was 75.

We regret to record the death of Mr. Robert Hislop, Welfare Officer, London Midland Region. Mr. Hislop, who was 55, was the Chairman of the British Railways Athletic Association, and took a great personal interest in the recreational side of welfare work.

New Travel Bureau at Euston

Stage in improvement of Great Hall

Inquiry counter in the new Euston bureau

Mr. John Elliot, Chairman, the Railway Executive, on December 8 inaugurated a new travel bureau at Euston, L.M.R., opening off the Great Hall and on the site of the former tea room.

Mr. J. W. Watkins, Chief Regional Officer, London Midland Region, introducing Mr. Elliot, said it had been the policy of the Railway Executive to make improvements at this very important terminus in stages. He quoted the train arrival bureau, the resignalling and lengthening of platforms, and the cafeteria bar provided in conjunction with the Hotels Executive. It became necessary 20 years ago to provide accommodation in the Great Hall itself for public and staff in connection with train inquiries. The structure then erected would be removed within a week. Next week there would be a Christmas tree in the centre of the hall, and after that the hall would be restored to approximately its original condition. The total cost of improvements so far effected at the station, including a new refreshment room to be provided on the arrival side, would be some £400.000 to £500,000.

Mr. John Elliot, in declaring the new bureau open, said that in present circumstances the money available for spending should go on the practical side of the business. Their task was to make travel easier and less expensive. Another improvement soon to be brought into use was a train and carriage cleaning depot at Willesden, where sleeping cars would be dealt with under cover and stock would be prepared for journeys to the highest standards of cleanliness.

He was sure that when the Transport Bill became an Act they would retain the necessary facilities and organisation to continue to make the economies which unification alone could bring; for, however efficient the companies were before nationalisation, as one unit vast economies had been sought for and found. There had been economies of £15 million a year as a result of doing things together. It would be their policy to see that the Regions had more and more authority. It was not politics that settled these things but efficiency. They must streamline their industry and bring it into line with modern requirements.

Layout of Bureau

The new bureau has been designed to provide modern and comfortable conditions for passengers making travel inquiries and booking train seats and sleeping berths. With a 4-door entrance, fluorescent lighting from fittings with louvres, specially designed counters and illuminated counter signs, the bureau will be able to deal more quickly and efficiently with the million callers a year who up to now have been attended to at the wooden building (now to be removed) in the centre of the Great Hall.

In the architecture of the bureau the Regional Architect, Mr. J. M. Harrison, has conformed with the style and amenities of the original Great Hall. A modern lighting installation, planned for an average illumination on the working plane of 15 lumens per sq. ft., shows these features to advantage. The bureau is illuminated by semi-indirect tungsten lighting from ceiling pendant fittings and by fluorescent tubes in louvred fittings over the counters. It was installed by the Mechanical & Electrical Engineer of the London Midland Region; all fittings for the public and staff sections of the office were supplied by the General Electric Co. Ltd.

The counters, made of grained oak, match the panelling and doors of the bureau. The counter top is of Formica, which cannot be scratched or burned by cigarettes. The arrangement of chart racks, counter, and telephone cubicles was decided by means of a full-scale "mock-up." This equipment is composed of grained oak to match the other decorations. The walls are flanked by strip-lit display cabinets, containing a map of the London Midland Region, and travel literature.

Telephone inquiries are handled at the rear of the office, where 24 lines have been provided from the exchange. The new instruments were supplied by the General Electric Co. Ltd. Each telephone clerk has a cubicle type desk, screened from those on each side. Call lights are used instead of telephone bells. Racks containing seat reservation plans of trains form the lower partition between the counter and telephone sections.

The combined central heating and ventilating plant was designed by the Heating & Lighting Section of the Civil Engineer's Department, and executed by the Norris Warming Co. Ltd. The general contractor was Griggs & Son Limited; the suspended ceilings below the dome and barrel ceiling are by Gyproc Products Limited, and the counters, back fittings, and all other fittings were by Wm. Mason & Sons Limited.

In the last 12 months the old bureau dealt with over 600,000 seat reservations, 200,000 sleeping berth bookings, and 5,000 steamer reservations, in addition to air bookings and seat and sleeper reservations on other Regions of British Railways. Also, over 300,000 travel inquiries were dealt with a year. The cost of the new bureau and of improvements remaining to be carried out in the Great Hall is in the region of £25,000.

Building Electric, Diesel-Electric and Gas-Turbine Locomotives

(*Concluded from page* 658)

profiling the bogie frames, and a Churchill vertical precision grinder. The bogies are delivered to the erecting shop complete with wheels and axles, axleboxes, spring and brake gear and traction motors; the motors and other electrical equipment are supplied by Metropolitan-Vickers, manufactured in that Company's works at Sheffield and Trafford Park.

Cabs and Partitions

The sheet metal departments for cabs, roofs, interior partitions, control desks and so on are adjacent to each other and are self-contained. The roof sections and cabs are fabricated on specially designed fixtures. Cab frames are constructed of angles and are jig built after which the sheet work is attached by welding; all joints are ground flush to give a smooth exterior finish.

The Brazilian locomotives are erected in seven stages. The underframe is received in the erecting shop in the reverse position, underside uppermost. All mechanical piping and electrical conduit, coupler and buffing gear, together with all details beneath the platform, are fitted. The underframe is then reversed and the body framing, resistance compartment, and carlines are correctly located and welded in position.

Electrical Equipment

The cabs and the bodyside panels are next fitted and welded in position, and the electrical conduit on the body floor secured in position. The next stage consists of the erection of the driver's desks, controller casing and high tension compartment. The roof sections are fitted and the pantograph supports welded and the main equipment fitted.

The roofs are then removed and the compressor, exhauster and brake equip-

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ment are bolted in position and the wiring and piping commenced. Master controllers, H.T. switchgear, resistances, and low tension panels are then fitted, and the electrical conduit and mechanical piping completed. The locomotive bodies are then dropped on to their bogies, roofs and pantagraphs re-assembled, and all connections, electrical and mechanical to the bogies are completed.

The locomotives are then subjected to test at 3,000 V. (H.T.) and 110 V. (L.T.) by means of a special motor generator set, after which the locomotives are despatched to the paint shop for finishing. All work carried out during locomotive erection is subject to rigid inspection at every stage of manufacture. The locomotives are also subjected to running trials on the track within the confines of the workshop area. The value of orders on hand at the commencement of operations was approximately £4,000,000.

Station Repainting Programme

British Railways are to brighten nearly 900 stations and depots during Coronation year. The repainting will cost over £1,000,000, and it is hoped that most of the principal stations concerned will be finished in time for the Coronation. The numbers of stations and depots to be repainted in each Region are:—

Region	Number
Eastern	176
London Midland	235
North Eastern	95
Scottish	139
Southern	88
Western	165
	898

The principal passenger stations in each Region to be dealt with are:—

Eastern Region: Kings Cross, Liverpool Street, Newark, Newmarket, Peterborough, Retford.

London Midland Region: Birmingham New Street, Heysham Harbour, Lancaster Castle, Leicester London Road, Liverpool Lime Street, Manchester Central, Manchester London Road, Nottingham Low Level, Rugby, Southport Chapel Street, Stafford.

North Eastern Region: Durham, Leeds City, Newcastle Central, Newcastle Manors.

Scottish Region: Glasgow Buchanan Street, Aberdeen, Perth.

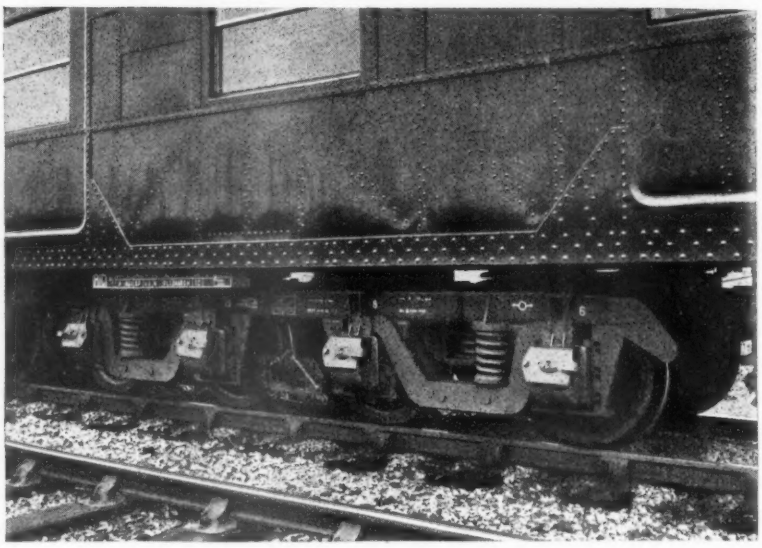
Western Region: Bristol Temple Meads, Cardiff General, Gloucester Central, Marylebone, Reading.

Southern Region: Dorchester, Southampton Central, Tonbridge, Victoria, Waterloo (part of station roof).

SCOTTISH REGION "BEST KEPT" STATIONS.—Seven stations have gained a Special Class award of £6 each in the Scottish Region Best Kept Stations Competition for 1952. They are: Bellgrove (Glasgow), Cullen (Banffshire), Inveresk (Mid Lothian), Kildonan (Sutherland), Lochee (Angus), Patna (Ayrshire), and Stirling. Last year Kildonan and Lochee stations also appeared in the Special Class prize list. First class prizes of £5 each have been won by 50 stations. There are 75 winners of second class prizes and 176 stations have gained third class awards.

Mauzin Track Inspection Car on British Railways

Trial of French recording apparatus on Western Region main line



Eight-wheel recording bogie with rail feeler disc between the third and fourth axles

By arrangement with the French National Railways, one of the Mauzin track inspection cars has been brought to England, and is now undergoing a series of trials on the Western Region of British Railways. These trials have been made possible by the co-operation of the Railway Executive and Matisa Equipment Limited, which holds the rights for the Mauzin vehicle outside France.

On Thursday, December 4, representatives of the press were given an opportunity of seeing the recording instruments in action on the main line between Paddington and Reading, a distance of 36 miles. The inspection car was marshalled in a special train of five vehicles, which included the Western Region coach containing Hallade recording instruments. A comparison was thus afforded between the two systems of recording the condition of the track.

Before the train left Paddington, Colonel H. B. Everard, Chief Officer, Engineering (Maintenance), the Railway Executive, outlined the differences between the Hallade and the Mauzin apparatus. The former records the reaction of the vehicle in which it is placed to the condition of the track, but its accuracy is limited because it is affected by the characteristics of the vehicle. On the Western Region this has been overcome to a large extent by reserving a coach for the instruments and paying particular attention to its maintenance.

The Mauzin coach gives fuller and more accurate information, and has been designed to detect exactly the points at which defects in the track have developed, so that the necessary action can be taken without delay. In outward appearance it is of typical French design, and is finished in the standard dark green livery of the French National Railways.

The coach runs on 16 wheels, and weighs about 50 tons. This provides a load of about six tons on every axle, which is sufficient to indicate whether there are any deficiencies in the packing of the ballast under the sleepers. The length of the vehicle over headstocks is about 48½ ft. It has been built to Continental standards, and this has restricted its use on British Railways to the lines of the Western Region which have a wide structure gauge. Colonel Everard emphasised that, despite this advantage, it was necessary to pass through some of the stations between London and Reading with care, to avoid fouling the platforms.

As soon as the special train left Paddington, the guests were taken to the Mauzin coach in small parties to see the recording apparatus in action. Seven stylos, connected through a system of tensioned wires and pulleys to the axles of the vehicle or to feeler discs in contact with the inside faces of the rails, describe continuous graphs on a moving strip of paper running across a table in the centre of the car.

Data Recorded

Recordings are made in the vertical plane of the relative levels of the rails, irregularities in each line of rail, variations in the cant of the rails on curves; and in the horizontal plane of the accuracy of the gauge, and the degree of curvature. Any previous record can be passed through the machine coincidently with the record in progress, so that direct visual comparison of track conditions can be made as the journey proceeds. The technical aspects of the apparatus and the records obtained were described in detail in our issue of September 12.

From Reading General Station, the train proceeded to Reading West, whence it was reversed over the spur at Oxford Road Junction to return to London. Both on the outward and return journeys, there was an opportunity for visiting the Hallade recording car. This vehicle was marshalled at the end of the train, and was loosely coupled to the coach immediately in front of it, to reduce disturbance of the recording instruments during the journey to a minimum.

Parliamentary Notes

Transport Bill Committee Stage

Clauses relating to sale of nationalised road haulage undertaking

The House of Commons on December 3 began the detailed examination of the Transport Bill in Committee.

On Clause 1 (Disposal of B.T.C. road haulage undertaking) Mr. L. J. Callaghan (Cardiff S.E.—Lab.) moved an amendment to prevent the B.T.C. from being required to dispose of road haulage as quickly as possible. He said the Commission should be allowed to dispose of its property in an orderly way so that it could judge when to sell it at a time when it would not disrupt trade and industry. The Minister was trying to double the total normal annual sale of commercial vehicles. He would never sell more than 25 per cent of the vehicles. The Government method of disposing of a piece of machinery no longer wanted was to pound it to pieces and sell it as junk. The Opposition's was to dismantle the machine and display the components for sale.

"Substantial Sales" of Vehicles

Mr. Alan Lennox-Boyd (Minister of Transport) said that once the decision to break up the long-distance monopoly was taken, the sooner it was done the better, though the Government had no intention of making speed the only criterion. There had been substantial improvements in the services offered by the R.H.E. over the last three years, but private competition in that field too would yield better results. The Association of British Chambers of Commerce was wholly behind the intention of the Bill; its only dispute was with one aspect of its machinery. He was determined that there should be a proper service during the transition. The fears which the Opposition hoped to arouse in the minds of potential buyers were not likely to be realised. He had hopes of "very substantial sales." They would sell not single vehicles, but businesses with many other assets.

Later, Mr. Lennox-Boyd said the B.T.C. was not the body to settle what vehicles it should have. It would be limited to the vehicles which the railways had before nationalisation, *plus* one-fifth. There was nothing to stop the Commission from expanding in the usual way.

The amendment was negatived by 291 votes to 267.

Scottish Committee

In reply to Mr. Arthur Woodburn (Clackmannan & E. Stirlingshire—Lab.) who moved an amendment to exclude Scotland from Clause 1, Mr. Lennox-Boyd said there was need for further consultative machinery for Scotland. The Government proposed to set up a committee to co-ordinate Scottish transport.

The amendment was negatived by 293 votes to 267; and Clause 1 was ordered to stand part of the Bill by 293 votes to 267.

Disposals Board

On Clause 2 (Road Haulage Disposals Board) Mr. Callaghan moved an amendment to increase the membership of the board from six to eight. As it was, the board would be weighed in favour of those who would benefit from the sales of B.R.S. vehicles.

After some debate, Mr. Lennox-Boyd said the Government held that the board should be an independent board of experts. He was prepared to accept the suggestion to increase the board by one and to ask the unions for a list from which the Minister would appoint a member. In his consultations with the unions later in the week he hoped this would be arranged.

Mr. Herbert Morrison (Lewisham S.—Lab.) said he had heard that the T.U.C. thought its representatives would feel embarrassed by serving on the board. It would therefore be well to leave a Conservative amendment, providing for trade union representation, until the report stage.

Mr. Lennox-Boyd said that if the invitation was not accepted, the board could function with a vacancy. If the Conservative amendment fell under the guillotine he would introduce an amendment in similar terms on the report stage.

The Opposition amendment was negatived, and Clause 2 was ordered to stand part of the Bill by 296 votes to 271.

Sale of Transport Units

On Clause 3 (Sale of transport units), when the debate was resumed on December 9, Mr. Aubrey Jones (Birmingham, Hall Green—C.) moved an amendment the purpose of which was that undertakings should be sold as business units rather than as blocks of property, which was preferable, and in accord with the intentions of the Minister. The sub-division of the Road Haulage Executive into business units would mean (he stated) no disturbance and no uneconomic severance of units from the main body. It would allay also fears of a large displacement of labour. There would be no call for a levy.

Mr. G. R. Mitchison (Kettering—Lab.), seconding, said it was important to make the transition as easy as possible, and to see that the highest possible price was obtained. The Opposition did not abate its objection to the whole scheme, but, given the decision on the Second Reading of the Bill, it thought the method proposed in the amendment better than that in the Bill.

After debate, Mr. Gurney Braithwaite (Parliamentary Secretary, Ministry of Transport) said that the Government did not think the amendment would have any material advantage in ensuring orderly disposal of vehicles with less risk of disturbance to trade and industry and minimising capital loss on disposal. Many buyers would be hauliers now operating and would wish to merge the additional assets into their businesses; if the amendment were carried they would have to liquidate newly formed companies.

Mr. Herbert Morrison said the limited delay involved by the amendment would not be fatal. The amendment would tend to ease the problem of the levy, which it was agreed was objectionable. In the circumstances the Opposition thought it should support it.

The amendment was negatived by 275 votes to 247.

Services in Remote Areas

Mr. Ernest Davies moved the first of a series of amendments to ensure that a comprehensive service was maintained, that those who took over the units should have an obligation to operate them in the same areas as they operated in at present, and to provide similar services. He asked who was going to provide transport, after sales had taken place, for uneconomic services.

Mr. Lennox-Boyd said the Government proposals would provide for continuing of services during disposal and for maintenance afterwards of existing and desirable services. Attempts to stereotype matters in an Act would be useless. Commercial considerations would ensure hauliers giving adequate service. He explained the safeguards in granting "A" licences.

The amendment was negatived and Clause 3 was ordered to stand part of the Bill by 280 votes to 261.

Vehicles Controlled by Railways

On Clause 4 (Transfer of transport units to B.T.C.—controlled companies), Mr. Callaghan moved the first of a series of amendments to remove the limitation that the Minister should make over to the Commission only six-fifths of the motor vehicles owned by them in 1948. He asked for an assurance that B.R.S. could run a long-distance road haulage service and also keep the vehicles which the Minister undertook should be kept by the B.T.C. It would be one way of preserving from the wreck of the 1947 Act long-distance road haulage services run in conjunction with the railways.

Mr. Lennox-Boyd said there would still be left to the Commission 47 per cent of the heavy haulage with the Commission; 57 per cent of vehicles for special services; 63 per cent of the average number now used for parcels, and in long-distance haulage 841 vehicles. That would facilitate friendly rivalry. This large fleet would enable the B.T.C. to be the largest road haulage undertaking in the country. The Government did not intend to perpetuate a monopoly but he would be ready to examine the possibility of differentiating between the proportion in the various categories and would consult the Commission.

Mr. Ernest Davies said the Minister was disrupting the B.T.C. parcels service. How could the Pickfords special division compete?

The amendment was negatived by 275 votes to 257, and was, by leave, withdrawn. At this stage the guillotine fell, and Clause 4 was ordered to stand part of the Bill.

On Clause 5 (Disposal of property otherwise than in transport units), Mr. Callaghan moved an amendment to delete the subsection giving the Minister power to direct the Commission to dispose of property other than as a transport unit. He said that the Opposition objected to the Minister, with the bias he had shown against B.R.S., having this immense power to require the Commission to dispose of any of this property he thought fit.

Mr. Gurney Braithwaite said the subsection was a necessary part of the machinery of the Bill.

The amendment was negatived.

During the discussion on the motion that the clause stand part of the Bill, Mr. Morrison said a lot of the vehicles were not going to be sold at a fair market price because the Minister was determined that any advantageous and publicly owned property held by a public authority was

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to be got rid of at the earliest possible moment. So many operations had to be performed with the consent of the Minister. The more one read the Bill the more one realised that the Minister was aiming to be in the position of the Deity.

Clause 5 was ordered to stand part of the Bill by 283 votes to 264.

The timetable for the remainder of the week provided for debate of further clauses, on December 10 as to the 25-mile limit for licensing vehicles, and the next day as to the road transport levy.

Railway Accidents and Nationalisation

Mr. Alan Lennox-Boyd said in reply to a question on December 1 by Sir Waldron Smithers (Orpington—C.) that the average annual number of train accidents of all kinds on British railways was 1,313 for 1946 and 1947 (before nationalisation) and 1,226 for 1948-51. He would deprecate any attempt to draw any political lessons from these terrible accidents. The number of accidents since the war had regrettably increased, though the number of passenger accidents remained about the same as before the war.

Replacement of Trams

Mr. Geoffrey Lloyd (Minister of Fuel & Power) said in reply to questions on November 24 that replacement of electric trams by diesel and petrol buses might result in 1952 and 1953 in an increase of some 20,000 tons a year in oil consumption and a decrease of about 100 million units of electricity a year. Government policy was not to interfere, on fuel grounds, with the free choice of types of vehicle. In wartime, an independent petrol vehicle was less of a risk in air attack and more flexible than the electric tram or trolleybus.

Railway Pensioners

Mr. Alan Lennox-Boyd in answer to questions on December 1 said that he hoped soon to make a statement on the problem of increasing railway pensions. The regionalisation of the railways would in no way detrimentally affect the carrying out of any proposals that might be made.

Questions in Parliament

Farmers and Closed Branch Lines

Mr. John Arbuthnot (Dover—C.) on December 8 asked the Minister of Transport if he would give a general direction to the British Transport Commission under Section 4 of the Transport Act, 1947, to make available to farmers the acreage now unused as a result of the closing of railway branch lines.

Mr. Alan Lennox-Boyd wrote in reply: I understand that the B.T.C. is ready to make available by sale or letting sites and land which are no longer required for the Commission's purposes following the closing of branch lines. No question of a direction therefore arises.

Road Haulage Levy

Mr. Ernest Davies (Enfield E.—Lab.) on December 3 asked the Assistant Postmaster General if he would state the estimated cost to the Post Office of the transport levy proposed in the Transport Bill in a full year.

Mr. L. D. Gammans wrote in reply: £70,000.

Staff & Labour Matters

Trade Unions and Denationalisation of Road Haulage

At the invitation of the Minister of Transport, the T.U.C. last week sent representatives to discuss with the Minister the appointment of a trade union member to the Disposals Board for B.R.S. vehicles, should Parliament decide to amend the Transport Bill in this way.

An agreed statement issued after the meeting said:

"While the T.U.C. and union representatives made it clear that they were entirely opposed to the main principles of returning long-distance haulage to private enterprise, there was a most useful and detailed discussion on specific issues directly affecting trade union members.

"The Minister formally asked the T.U.C. representatives to consider nominating a trade union member to the Disposals Board, should Parliament decide to amend the bill in this sense. This they promised to consider carefully. A further meeting is to take place shortly."

Union leaders taking part included Messrs. J. B. Figgins, N.U.R.; A. Hallsworth, A.S.L.E.F.; G. B. Thorneycroft, T.S.S.A.; J. Tiffin, T.G.W.U.; and G. Woodcock, Assistant Secretary of the T.U.C.

Further discussions took place on Tuesday, and a meeting was arranged for today (Friday).

Engineers' Negotiating Machinery

The Engineering & Allied Employers' National Federation and the C.S.E.U. began talks last week on the union proposal (rejected in 1949) to replace the present machinery for avoiding disputes by a joint industrial council. In 1950, the C.S.E.U. annual conference resolved that the 1922 agreement be ended and a central council appointed. Similar resolutions were passed in 1951 and 1952. The functions of the central council, which would be modelled on the Ministry of Labour Joint Industrial Council, would, besides settling disputes, include regular review of wages and working conditions.

Extension of "Europ" Wagon Pool

At a conference held at Brissago, in Switzerland, on November 25-28, extension was discussed of the "Europ" wagon pool, which had been discussed earlier at Mondorf (Luxembourg) as recorded in our October 10 issue. Ten Western European railways were represented. The Swiss Federal Railways, as managing administration for the R.I.V., provided the chairman.

Adaptation was discussed of the R.I.V. rules to apply to a wagon pool, and the necessary regulations as to technical matters affecting wagon design. Specimens of all wagons to be contributed to the pool were sent to Biasca, on the Gotthard line of the Swiss Federal Railways, for inspection by delegates. An agreement was drawn up which it is hoped will take effect from March 1, 1953, after ratification by the railway administrations concerned. The following contributions of wagons have been suggested: Austrian Federal 4,500; Belgian National 20,000; Danish State 2,000; French National 50,000; German Federal 50,000; Italian State 15,000; Luxembourg National 1,200; Netherlands 9,000; Saar 4,100; and Swiss Federal Railways 4,000. These figures will be fixed before the scheme takes effect.

The "Europ" wagon office is to be in Berne. Each participating administration will second one member of its staff to the office, the working of which will be supervised by a committee of representatives of the administrations concerned.

New Type of Rail Vehicle for High Speeds

In a recent issue of *Schweizerische Bauzeitung* appears a description of a new type of duo-rail vehicle. The rails consist of steel or pre-stressed concrete girders resting on pillars. Each motor car has three separately motored half-axles on either side projecting from the motor compartment at the level of the centre of gravity, so that the vehicle is suspended at that level and can safely run at high speeds. Horizontal guide wheels eliminate undue lateral play. Both running wheels and guide wheels may be rubber-tyred. It is claimed that overall speeds of 175 m.p.h. are possible at a comparatively low cost, so that the system would be highly economic and could successfully compete with air traffic.

L.M.R. Closed Stations and Depots

On December 1 the passenger train service on the L.M.R. Kirkby Stephen-Tebay branch was withdrawn and the following stations were closed to the types of traffic shown: Smardale (passengers and freight), Gaisgill (passengers, parcels, and passenger train merchandise; also freight traffic), and Ravenstonedale (passengers). Parcels and passenger train merchandise for Smardale continues to be dealt with at Kirkby Stephen, and for Gaisgill and Ravenstonedale is being handled at Kirkby Stephen East. Alternative arrangements have been made for freight traffic at Smardale and Gaisgill; and road services are available for passengers from Kirkby Stephen or Tebay.

Also on December 1 Llandulas, and Old Colwyn Stations (between Bangor and Rhyl), and Poulton Curve Halt (between Blackpool North and Fleetwood), were closed for passengers, parcels, and passenger train merchandise. The Aspatria-Mealsgate branch was closed to all traffic, together with Mealsgate goods depot, on the same date. It is announced that Droylesden goods depot was closed for all traffic on November 24 last, and that Aston-le-Walls Siding goods depot (between Byfield and Fenny Compton) will be closed on January 5, 1953.

INTERNATIONAL SLEEPING CAR SHARE TRUST LIMITED.—The Directors' report for the year ended May 31, 1952, that after charging administration expenses and providing £28,956 for taxation, the net profit is £27,911, which with the balance of profit brought forward gives a credit balance of £35,816. Pending the result of discussions between the board and the majority shareholder on the future of the Trust, consideration of payment of a dividend has been postponed. The profit and loss account embodies arrears of dividends on the holding of preference and ordinary shares of the Wagons-Lits Company, with the dividends for the year ended December 31, 1951, and an ex gratia payment of £714 from the Wagons-Lits Company in view of the unavoidable delay in payment of dividends to December 31, 1950.

Institution of Railway Signal Engineers' Annual Dinner

Minister of Transport on signal engineers' contribution to world railway safety

The annual dinner and dance of the Institution of Railway Signal Engineers took place on December 5 at The Rembrandt Hotel, South Kensington. The President, Mr. T. S. Lascelles, who was accompanied by Mrs. Lascelles, took the chair, and the guests of the Institution were Mr. Alan Lennox-Boyd, Minister of Transport and Civil Aviation, and Lady Patricia Lennox-Boyd; and Mr. C. E. R. Sherrington, Director of Research Information Division, British Transport Commission, and Mrs. Sherrington. Others present included:—

Mr. J. C. L. Train, Member, the Railway Executive; Lt.-Colonel G. R. S. Wilson, Chief Inspecting Officer of Railways, Ministry of Transport; Messrs. B. W. C. Cooke, Editor, *The Railway Gazette*; W. J. A. Sykes, Assistant Electrical Engineer, Southern Region; Captain H. P. Middleton, Honorary Secretary, Institution of Engineering Inspection; Messrs. Donald Brown, J. Griffith Hall, R. I. Kirkland, and J. Pelham Maitland.

Mr. Lascelles was supported by:—

Messrs. T. A. Austin and J. H. Fraser, Vice-Presidents; Mr. A. F. Bound, Honorary Member and Past President; Messrs. C. Carslake, F. L. Castle, F. Downes, R. Dell, F. Horler, A. Moss, and S. Williams, Past Presidents; Messrs. E. G. Brentnall, C. G. Derbyshire, F. G. Hathaway, J. C. Kubale, M. Le Sueur, W. Owen, D. G. Shipp, and J. F. H. Taylor, Members of Council; Mr. G. J. Dickin, Honorary General Secretary, Mr. B. Reynolds, Honorary Treasurer, Mr. W. H. Challis, Honorary Secretary, General Purposes Committee.

Mr. Alan Lennox-Boyd proposed the toast of the Institution, coupled with the name of the President. He said that he was very glad to associate himself with the work that the Institution was doing and the indispensable role it filled in the safety of British Railways and of railway systems all over the world. He was their spokesman in a Parliament which, like any other, depended not on what was desirable, but on what was possible. What they had to do was to try to bring those two aims into close harmony and make what was possible also what was desirable.

He believed in fair competition on the great railway systems of the United Kingdom. In the House of Commons they would shortly be entering into a detailed examination of railway rates and charges, and it must be his duty to try and make competition fair. That by itself would not be sufficient to make people travel or send their freight by rail. The final test must turn on safety, and that was something that no parliamentary machine could possibly ensure, without recognising the value of what was done by the signal engineers—the special research work in which they were engaged and the educational work to ensure that there would be a constant flow of fully qualified people to bring to perfection the safety devices on our railway systems. He congratulated the Institution on the work that had been done and wished it every possible success in the future.

Mr. T. S. Lascelles, in reply, expressed the thanks of the Council and Members to Mr. Lennox-Boyd for so readily consenting to attend and for proposing success to the Institution. Between an important section of the Minister's department and the signal engineering profession, represented in the Institution, there was the link of a common aim, the securing of the maximum degree of safety for the railway traveller and for the railwayman accompaying him, while at the same time facilitating the running of trains and obtaining the maximum track capacity, where required. Whether engaged in industry or on the railway, the signal engineer set safety before him as his first objective, and the others followed from that. Signal engineering had become a specialised field of work many years ago, but there was then no place where signal engineers could come together and discuss their problems. Eventually the Institution was founded, an act of some courage, and although never having a large membership and never enjoying above slender resources, it had made its way, often through appreciable difficulties, and had never looked back. Very few associations had done so much with so little, or had so much willing service rendered to them. The results were seen among other things in the impressive series of proceedings that had been built up.

Safety on British Railways

There was, indeed, no other institution in the world dealing with signal engineering in like manner. Even when it was founded, however, a very high degree of safety had been attained on the railways of Great Britain. This had been maintained since and was in great measure due to the action of the Inspecting Officers of Railways in applying the laws relating to railway safety. Under this legislation sound working principles had been established without placing restrictions on individual initiative, and the procedure had justified itself. These officers had been connected with the Institution since its inception and their views commanded respect in its debates. British signal and telecommunication engineering was second to none in the world.

The problems today were not so much technical as economic. If resources could be made available, the signal engineer could do all that was required and provide everything the traveller had a reasonable right to expect to see applied for his protection. Within the limits of its circumstances, the Institution had tried to promote education for signal engineering, with encouraging results. The Council would not fail to do everything to justify the Minister's good wishes for its future.

Mr. T. A. Austin, Vice-President, proposed the toast of "The Visitors."

Mr. C. E. R. Sherrington, in his reply, spoke of the high regard which people overseas had for the British signalling industry, represented to them by the Institution. Their President, Mr. Lascelles, was particularly well known on the Continent of Europe, being a most able linguist in technical matters.

Mr. J. H. Fraser, Vice-President, proposed the overseas members, on whom we, in this country, depended for so much.

Mr. C. A. White, South Indian Railway, spoke in reply.

JAPANESE SERVICES CUT BECAUSE OF COAL STRIKE.—Passenger and goods services on the Japanese National Railways have been cut by 30 per cent because of the seven-week-old strike of coal miners. About 300,000 miners are on strike for higher wages.

Contracts & Tenders

British Railways, Eastern Region, has placed a contract with Eagre Construction Co. Ltd., Scunthorpe, Lincs., for new exchange sidings, involving earthworks, drainage, permanent way and ancillary works at Harlow, Essex.

A recent Reuter's report from Lisbon states that Ferrostahl A.G., of Essen, has received an order to supply rails and railway equipment to Portuguese West Africa. The material will be used for the construction of a 300-km. extension of the Mossamedes Railway.

The Government of Pakistan is inviting tenders for the supply of 13,692 tons of 90-lb. and 13,990 tons of 75-lb. manganese steel rails. Further details are given under Official Notices on page 671.

The Board of Trade, Special Register Information Service, has reported a call for tenders for 160 bodies and underframes for bogie covered goods wagons, issued by the State Railways of Thailand.

Tenders should reach the Office of the Stores Superintendent, State Railways of Thailand, Bangkok, by 2 p.m. on Wednesday, February 4, 1953.

A copy of the tender documents is available for inspection at the Board of Trade by representatives of United Kingdom manufacturers. A further copy is available on loan in order of written application; reference CRE/40374/52 should be quoted.

The Board of Trade, Special Register Information Service, has reported a call for tenders for 300 all-steel high-side wagons, issued by the State Railways of Thailand.

Tenders should reach the Office of the Stores Superintendent, State Railways of Thailand, Bangkok, by 2 p.m. on Monday, January 19, 1953.

A copy of the tender documents is available for inspection at the Board of Trade by representatives of interested United Kingdom manufacturers. A further copy is available on loan in order of written application; reference CRE/40373/52 should be quoted.

The United Kingdom Trade Commissioner at Johannesburg has notified the Board of Trade Commercial Relations & Exports Department of a call for tenders issued by the South African Railways for the supply of:—

5,000 springs, india-rubber, drawgear.
200 springs, india-rubber, auxiliary bearing.
180,000 washers, india-rubber, gauge glass.
10,000 washers, rubber, lubricator glass.

Tenders should reach the Chairman of the Tender Board, P.O. Box 7784, Johannesburg, not later than 9 a.m. on Thursday, January 22, 1953. A copy of the full requirements and of the general conditions for tender is available for inspection by interested firms at the Board of Trade.

The Board of Trade, Special Register Information Service, has reported a call for tenders issued by the Directorate General of Supplies & Disposals, Government of India, for the supply of: 210 brake block heads with lugs, cast steel, for 12 ft. and 10 ft. wide motor coach bogies (left hand) and 230 for right hand; 105 brake block heads without lugs, cast steel, for 12 ft. and 10 ft. wide motor bogies (left hand) and 60 for right hand; 7,000 brake blocks, Engine, for "A," "B," "P," "F,"

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and "T" class locomotives: 15,000 brake blocks (metre gauge) to I.R.S. Drawing No. W-901 alt. 5; and 11,000 brake blocks (B.T.C. type).

Tenders should reach the office of the Director General of Supplies and Disposals, New Delhi, by 4 p.m. on December 22. A copy of the tender documents is available for inspection at the Board of Trade, Commercial Relations & Export Department, by representatives of interested United Kingdom manufacturers. A further copy is available on loan in order of written application; reference CRE/40251/52 should be quoted.

Notes and News

Draughtsmen Required.—Charles Roberts & Co. Ltd., Wakefield, have vacancies for two draughtsmen, preferably with railway and rolling stock experience. See Official Notices on page 671.

Sudan Railwaymen's Strike Threat.—The Sudan Railways face a strike of 20,000 workers in support of port workers' demand for a longer breakfast time. The strike is due to last three days, beginning today (December 12).

Powell Duffryn Dividend. — Powell Duffryn Limited announces a dividend on the £3,600,000 4½ per cent cumulative preference stock of 2⅛ per cent actual, less income tax at 9s. 6d. in the £, for the six months ending December 31, 1952. Payment is to be made on January 1, 1953, to holders registered on the books of the company at close of business on December 1, 1952.

Barras Station Closed for Freight Traffic.—The North Eastern Region announces that as the present services at Barras Station are being maintained at a considerable loss, it is necessary to close it to freight traffic and reduce the passenger station to an unstaffed halt. Alternative facilities for parcels and freight train traffic, including livestock, are available at Kirkby Stephen. The present arrangement under which ordinary parcels traffic is collected and delivered from Kirkby Stephen will continue, and a collection and delivery service for freight "smalls" traffic will be operated by British Railways motors based on the railhead at Appleby.

San Paulo Railway Finances.—A statement by the Directors of the San Paulo (Brazilian) Railway Co. Ltd., answers criticisms that have been made of some aspects of its conduct of affairs. Dealing with the claim that since 1946 the board has achieved a loss of stockholders assets, the statement says that included in the so-called loss of assets are payments of £300,000 to debenture holders by way of interest and £125,000 to Preference stockholders by way of dividend. There was also included an item of £100,000 in respect of Brazilian taxation. But this was a provision, not a loss. The Supreme Court in Rio has issued its finding in respect of tax based on profits remitted for the year 1941. Its ruling is that tax for that year has been unlawfully levied on the company and the Ministry of Finance has been ordered to repay the sum of Cr.$2,560,000, equivalent, at today's exchange to £48,820. Referring to amounts totalling about £200,000 in respect of expenses and charges on the main line incurred prior to expropriation, the directors state that of these £42,500 was in respect of pensions contributions and £101,700 in respect of social charges due to the staff under Brazilian law and accrued prior to take over. The company disputed this last item, which was originally levied in an amount of £127,000, but though it was unable to avoid total liability it succeeded in getting a reduction of 20 per cent.

Christmas Trees at Scottish Region Stations.—Christmas tree displays are being featured at seven of the principal stations in Scotland during the festive season. They are on exhibition at Aberdeen, Dundee West, Edinburgh Waverley, and Princes St., and Glasgow Central, Queen Street, and St. Enoch stations. The displays are the centres of seasonable appeals on behalf of charitable and other organisations.

British Railways Coal, Iron, and Steel Carryings. — British Railways cleared 3,275,910 tons of deep-mined and open-cast coal in the week ended 6 a.m. on December 8—an increase of some 70,000 tons over last week's figure. The weekend figure was 406,140 tons. During the week ended November 29, 218,689 tons of iron and steel from the principal steelworks and 295,000 tons of iron ore were carried.

Institute of Transport Metropolitan Section.—The fifth annual report (1951-52) of the Metropolitan Section of the Institute of Transport, of which Mr. Frank Gilbert, Principal Staff Officer of the B.T.C., is Chairman, states that meetings during the session were exceptionally well attended, and that the Essex Group carried out a full programme of meetings. At the annual meeting on December 3, 1951, Mr. G. H. Searle, the Hon. Treasurer, was elected a Vice-Chairman *vice* the late Mr. W. H. Gaunt, and Mr. A. R. Parselle, a member of the Committee, was elected Hon. Treasurer. A B.T.C. Prize of £10 was awarded to Mr. A. G. Kershaw, Secretary of the British Travel & Holidays Association, for his paper on tourist travel, and a Graduateship Examination Prize for second place to Mr. J. B. Mander, of British Railways (L.M.R.).

New Station at Carpenders Park, L.M.R.—Traffic is now being handled at the new £90,000 station at Carpenders Park on the London Midland Region. Designed by the Architect of the London Midland Region, full advantage is being taken of modern materials and construction to provide attractive buildings. The island platform is 450 ft. long, with provision for future extension. The station is located centrally between the housing estates on each side of the line. It is served by the L.M.R. Euston-Watford and Broad Street-Watford electric trains, and by the Elephant & Castle-Watford service of the London Transport Bakerloo Line.

Western Region Passenger Service Withdrawals.—The passenger service between Bridgwater North and Edington Junction (Somerset) was withdrawn on December 1. Bridgwater North and Cossington Stations, and Bawdrip Halt have been closed. On the same day the passenger service was withdrawn between Great Malvern and Upton-on-Severn and a revised passenger service was introduced between Ashchurch, Tewkesbury and Upton-on-Severn. Malvern Hanley Road Station has been closed for passenger, parcels and goods traffic.

Presentation of First Aid Awards at Paddington.—The presentation of one Class 1 award (clock with an appropriate engraved silver plate and framed certificate), and eleven Class 2 awards (framed certificates) was recently made by Mr. K. W. C. Grand, Chief Regional Officer, Western Region, at Paddington. Doctor H. H. Cavendish Fuller, Chief Medical Officer, Railway Executive, was present, together with a number of Chief Officers of the Western Region. A vote of thanks to Mr. Grand was proposed by Mr. Gilbert Matthews, Operating Superintendent.

Transport Delays in Fog.—A fog that descended on the London area and in other parts of the country on December 3, and persisted in London until Monday, caused considerable delay to transport services. On suburban railway routes fog services were in force and some cancellations of main-line trains were necessary. There was an accident at 4 a.m. on Sunday morning when a light engine ran into three men at a repair gang working at Norwood Junction, Southern Region, killing one and injuring two. London Transport trains, although delayed on open sections of track, carried much of the traffic diverted from cancelled road services.

October Wage Increases. — Aggregate weekly wage increases in October were much less than the average for the year, according to figures in the November issue of the *Ministry of Labour Gazette*. The total was estimated at £159,000 in the weekly wages of 615,000 workers. Over the first ten months of the year the estimated net amount of increase in weekly wages was £3,290,300, involving 8,493,000 workpeople. In the corresponding months of 1951 there was a net increase of £4,536,000 in the weekly full-time wages

The new island platform at Carpenders Park Station, L.M.R

OFFICIAL NOTICES

The engagement of persons answering Situations Vacant advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

TWO DRAUGHTSMEN Required, preferably with railway rolling stock experience.—Charles Roberts & Co. Ltd., Horbury Junction, Wakefield.

ASSISTANT to Transport Superintendent of large Iron and Steel Manufacturers, North East Coast, age 30/35 years; railway operating and commercial experience essential; state age, qualifications and salary required.—Box 687, Railway Gazette, 33, Tothill Street, London, S.W.1.

THE Government of Pakistan invites tenders for the supply to the North Western Railway of—13,692 tons Medium Manganese Steel Rails 90 lbs. R. 13,990 tons Medium Manganese Steel Rails 75 lbs. R. with Fishplates, Fishbolts and nuts. Tender document can be obtained from the Office of the High Comissioner for Pakistan in London, 39/40, Lowndes Square, London, S.W.1 (Room 115), on payment of £2 per set, which amount will not be refunded. Tenders will be opened in Karachi on 5th January, 1953.

BOUND VOLUMES.—We can arrange for readers' copies to be bound in full cloth at a charge of 25s. per volume, post free. Send your copies to the SUBSCRIPTION DEPARTMENT, Tothill Press Limited, 33, Tothill Street, London, S.W.1.

IMPORTANT wagon builder desires Sales Engineer for Belgian Plant. Work to consist of estimating costs, preparing detailed technical quotations, doing sales work both written and by personal contact. Spanish and French languages useful. Technical training essential. Preference given to man willing to travel. Excellent future for man with right combination of sales and technical abilities. Minimum age 25, maximum depending on experience but preferably not over 45. Excellent salary depending on qualifications. Reply Box 679, *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

N.E.R. HISTORY.—Twenty-Five Years of the North Eastern Railway, 1898-1922. By R. Bell, C.B.E., Assistant General Manager, N.E.R. and L.N.E.R. Companies, 1922-1943. Full cloth. Cr. 8vo. 87 pages. 10*s.* 6*d.*—*The Railway Gazette*, 33, Tothill Street, London, S.W.1.

of 9,765,000 workpeople. The index of wage rates remained at 131, five points higher than at the end of 1951, while the index of retail prices at 138 is eight points above the figure at the end of last year.

Oil-Fired Locomotives.—In a report on Mr. Ikeson's paper published in our October 24 issue, the reference to ease of reconversion to oil-firing should have read to coal-firing. Mr. Ikeson's comment on the problem in some oil-producing countries was that it was sometimes one of water, not fuel.

International Railway of Central America Wage Demands.—The president of the International Railway of Central America said that wage and pension increase demands presented by employees would amount to at least $4,000,000 annually. He stated that the railway could not increase its rates sufficiently to meet any such increase in overheads.

R.C.T.S. Photographic Exhibitions.—The Railway Correspondence & Travel Society in association with the Railway Photographic Society has arranged exhibitions of railway photographs at Midland Bank Chambers, Sheffield, 1, on February 2 and on February 4-7; at the Albert Hall Institute, Nottingham, on February 19-21; and at the Museum of Art, Hove, on February 28-March 22. The exhibitions will be open to the public.

Proposal to Close Some Isle of Wight Lines.—It is understood that the Southern Region, with the agreement of the British Transport Commission and the Railway Executive, intends to close the Newport-Freshwater and Newport-Sandown lines within a year and the Ryde-Cowes line within five years, and has informed the Isle of Wight County Council of its intention. The Merstone-Ventnor West service having recently been withdrawn, only the Ryde-Ventnor line would ultimately remain.

Record Steel Production in November.—Steel production last November was at an annual rate of 17,951,000 tons, the highest rate recorded in the history of the industry. The previous best month was in November, 1950, with an annual rate of 17,472,000 tons. Production of steel ingots and castings was at an annual rate of 17,951,000 tons in November, 1952, compared with one of 17,044,000 tons in the previous month and of 16,437,000 tons in November last year. Pig iron production last November was at an annual rate of 10,753,000 tons against 10,616,000 tons in October and of 10,194,000 tons in November, 1951. The British Iron & Steel Federation states that production now is being steadily maintained at above the previous peak rates of 1950. This advance follows progressive fulfilment of the industry's postwar development plan started in 1946 and due for completion by mid-1953.

Battery Companies' London Office Moved.—The London office of Pritchett & Gold and E.P.S. Co. Ltd. and of the Tudor Accumulator Co. Ltd., has been moved to 137, Victoria Street, London, S.W.1. The telephone number and telegraphic address are: TATe Gallery 9212 and Storage, Sowest, London, respectively.

Further Fare Reductions on Air Service in British Isles.—The weekly return fares introduced by British European Airways on London-Scottish services are reported to have proved so popular that they are being extended to the London-Isle of Man-Belfast route. The new return fares are £8 10s. to the Isle of Man and £10 to Belfast.

Krupp Factory in Brazil.—An agency message states that the Brazilian Government has approved an offer by Fried. Krupp A.G. to set up a locomotive factory at Sao Paulo, Brazil, at a cost of $5,000,000. The factory, on which construction is to start immediately, will turn out diesel, steam and electric locomotives. It is expected to reach maximum production in about five years.

Cheaper Air Travel in Europe.—Agreement was reached recently at a meeting in Cannes of airlines belonging to the International Air Transport Association, on plans to provide tourist rate air services throughout Europe as from April 1, 1953. To permit of cheaper fares, which will average between 20 and 25 per cent below first class rates, the seating capacity of aircraft will be increased by reducing baggage space. It is expected that ultimately about half of the 2,500 aircraft operated by the I.A.T.A. members will be converted for tourist services. Still cheaper fares are proposed for certain night flights within Europe.

Permanent Roof for Sheffield Victoria Station.—A design has now been prepared for a permanent roof to replace the temporary structure over platforms 3 and 4 at Victoria Station, Sheffield, Eastern Region. The design provides for a fully-glazed, suspended roof of light construction covering the platforms only, the main supporting beams being of pre-stressed concrete. The beams will also support the overhead electric traction wires and equipment, and no independent overhead structure will be needed for this purpose. The proposed roof will have all the advantages of a low-level roof for glass cleaning, and maintenance; and, as with the original roof, there will be no supporting columns and no obstructions at platform level. Preliminary work will start shortly and the erection of the new roof will begin early in the New Year.

Firth Brown London Office.—As from December 1, 1952, the address of the London office of Thos. Firth & John Brown Limited has been changed to 11, Hamilton Place, Piccadilly (Hyde Park Corner), London, W.1. The telephone number is Grosvenor 8781 (6 lines), and the telegraphic address Mesmeric Audley London.

Liverpool-Belfast Summer Sailings.—The Belfast steamship Company opened advance bookings on December 1 for summer holiday sailings. Sailing tickets will be required from Liverpool on Monday, July 27, Thursdays, April 2 and July 23, Fridays, July 17, 24 and 31, and Saturdays, July 18, 25, and August 1. In the reverse direction they will be required on Fridays July 10, 31, and August 14; and Saturdays July 11 and August 1 and 15.

International Machine Tool Exhibition Oil Supply.—A temporary oil depot with the necessary equipment was installed at Olympia during the recent International Machine Tool Exhibition for supply cutting oils and other lubricants for the various machine tools exhibited under production conditions. Because of the limited storage accommodation at Olympia, a shuttle service was maintained between there and its firm's Southall branch. The firm also provided the necessary technicians and staff for the initial oil supplies and replenishment during operation.

Institute of Metals.—In announcing the Institute of Metals students' Essay Prize Competition, 1953, the Council of the Institute has stated that it will present two prizes of 20 guineas each for the best essays submitted in accordance with the regulations. Each prize will be ten guineas in money and ten guineas in scientific, technical, or other appropriate types of books, to be selected by the prizewinner. If of sufficient merit, a prize-winning essay may be published in the Institute's Bulletin, or selected for reading before a local section. The choice of subject is left to the competitors, except that subjects relating exclusively to extraction, or ferrous metallurgy are ineligible.

New Sidings at Rainham, Eastern Region.—The Eastern Region is to provide additional siding accommodation at Rainham Goods Yard, Essex. Rainham is the railhead for a rapidly growing industrial area; the tonnage handled over the past few years has steadily increased and the present siding facilities at Rainham are in-

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sufficient to meet traffic needs. Another siding to hold 35 wagons will be laid in the lower yard and two existing sidings will be extended to hold 34 wagons each. A shunt neck to hold 38 wagons is to be provided to enable the lower yard to be shunted without occupying the main line. Electric lighting is to be installed in the upper and lower goods yards, the goods shed and signalbox.

Keith Blackman Fan Prices Unchanged.—Mr. Donald S. Woodley, Deputy Chairman & Joint Managing Director of Keith Blackman Limited, issued a statement on his company's policy regarding prices after the recent wage award agreement between the engineering unions and the Employers' National Federation, and in the light of the increase in freight charges. He said it was considered that every effort should be made to halt the upward trend of manufacturing costs. In spite of the fact that some of the company's suppliers of raw material, components, and other items have seen fit again to raise their prices, Keith Blackman Limited had decided to attempt to absorb, at least for the present, the whole of the increased costs. It was, therefore, with great pleasure that they announced that until further notice they would not be making any advance in prices to customers for goods of their manufacture. It was hoped that this action would, in co-operation with others of like mind, prove to be justified and thus result in at least some measure of price stability within the engineering industries.

Forthcoming Meetings

December 15 (*Mon.*).—Institute of Transport, Annual General Meeting of Corporate Members, at 80, Portland Place, W.1, at 5.45 p.m.

December 16 (*Tue.*).—Institution of Civil Engineers, Great George Street, Westminster, S.W.1. Unwin Lecture: "The Development and Functions of the Research Department of the Railway Executive," by Mr. T. M. Herbert, at 5.30 p.m.

December 16 (*Tue.*).—Institute of Transport, Birmingham Graduate and Student Society, at the Birmingham Chamber of Commerce , "Suburban Railway Traffic Operation," by Mr. C. F. Klapper, at 6.45 p.m.

December 17 (*Wed.*).—Permanent Way Institution at the Railway Executive Headquarters, 222, Marylebone Road, N.W.1. "Inspection and Maintenance of Bridges and Structures," by Mr. J. S. Campbell, at 6.30 p.m.

December 17 (*Wed.*).—Institution of Locomotive Engineers, at the Institution of Mechanical Engineers, Storey's Gate, S.W.1. "Recent Developments in the use of Rubber in Railway Engineering," by Mr. S. W. Marsh, at 5.30 p.m.

December 17 (*Wed.*).—Institute of Fuel, at the Royal Society of Arts, John Adam Street, W.C.2. Three papers on "Sulphur Recovery from Flue Gases," at 6 p.m.

December 18 (*Thu.*).—Diesel Engine Users Association, at Caxton Hall, Westminster, S.W.1, "Report on Heavy Oil Engine Working Costs, 1950-51," at 2.30 p.m.

December 18 (*Thu.*).—Locomotive & Carriage Institution of Great Britain & Eire, at the Railway Clearing House Board Room, 163, Eversholt Street, N.W.1, "Diesel Locomotives," by Mr. H. M. McIntyre, at 7 p.m.

Railway Stock Market

Business in stock markets has remained on a moderate scale and British Funds and leading industrial shares were lower on balance although little selling was reported. Buyers are showing a waiting attitude pending the outcome of the Commonwealth conference and further indications of the plans of the new U.S. Government. Recent hopeful views of prospects of moderate tax reductions in the next Budget have given way to the opinion that there is little scope for lower taxation without considerable reduction in Government expenditure.

Modification of the arms drive means that the increased expenditure on arms planned for 1953 will not take place. In some quarters it is believed that expenditure on arms next year may be below the 1952 level. There may well be larger supplies of materials for industry to help in the export drive.

Manila Railway debentures and shares were higher on the reported sale of the Manila Hotel by Manila Railroad, the operating company. This sale, it is assumed, would enable the latter to pay off arrears on its 5 per cent bonds which are owned by Manila Railway, and the latter would in that event pay the outstanding arrears on its "A" and "B" debentures which date from 1942. Any remaining balance might have to be applied in providing for redemption of the debentures; but the hope that a part of any balance remaining might be used to make small payments on the shares explains the speculative attention which is being given to the latter.

At the time of going to press the reported hotel sale has not been confirmed, nor the amount involved in the transaction. Manila Railway "A" debentures have strengthened to 77, and the "B" debentures to 67, while the £1 preference shares, which are non-cumulative as to dividend, were 8s. 9d. and the 1s. ordinary shares 2s. 9d.

Another centre of speculative attraction has been Nyasaland Railway £1 shares, which have improved sharply from 3s. to 4s. 9d. in the hope that the company may be permitted to remove control and management from London to Nyasaland, which would of course mean a good tax saving in due course. The rumour has not been confirmed. The 3½ per cent debentures were quoted at 72.

There has also been more activity in Costa Rica Railway issues in sympathy with the rise in Costa Rica Government bonds. The ordinary stock moved up to 10½ and the second debentures strengthened to 43.

Canadian Pacifics were firmer at $59, with the preference stock £64, and the 4 per cent debentures £79¾. White Pass & Yukon showed activity but were lower on balance at $18, while the 5 per cent convertible debentures moved lower at 66.

United of Havana stocks have been less active but steady with the 5 per cent 1906 debentures 18½, the 4½ per cent Cuban debentures 42, and the 4½ per cent Western debentures 20½, while Havana Terminal debentures were 72.

Antofagasta ordinary and preference were 10⅝ and 51 respectively, Mexican Central "A" debentures eased to 66, Taltal shares were 15s. and Nitrate Rails 17s. 6d.

In other directions, Chilian Northern 5 per cent first debentures have changed hands at 26, Brazil Railway bonds at 6⅛, while Dorada Railway ordinary stock remained active around 62, and Guayaquil & Quito 5 per cent bonds were dealt in up to £32½.

Among road transport shares, Southdown were 82s. 6d., Lancashire Transport 42s., while West Riding moved up to 31s. 3d. B.E.T. deferred stock was £445.

Engineering and allied shares reflected the easier trend in the industrial section of markets. Vickers were 43s., John Brown 45s., Cammell Laird 11s. 6d., T. W. Ward 71s., and Ruston & Hornsby 38s. 6d. Tube Investments were 59s. 6d.

Among shares of locomotive builders and engineers, Beyer Peacock were 31s. 3d., G. D. Peters 5s. shares 17s. 6d., and Hurst Nelson 43s. 6d. North British Locomotive strengthened to 13s. 7½d., Birmingham Carriage were 31s. 10½d., Vulcan Foundry 22s. 6d., Gloucester Wagon 10s. shares 11s. 9d., Charles Roberts 20s. and Wagon Repairs 5s. shares 12s. 9d.

The yields on most shares of locomotive builders and engineers are attractive, and although higher dividends are not expected, the market belief is that there are good prospects of dividend rates being maintained.

Traffic Table of Overseas and Foreign Railways

	Railway	Miles open	Week, or month ended	Traffics for week: This year	Inc. or dec. compared with 1950/51	No. of week	Aggregate traffics to date: Total 1951/52	Increase or decrease
South & Can. America	Antofagasta ...	800	28.11.52	£ 181,160	+ £ 42,430	48	£ 7,466,370	+ £ 1,549,800
	Costa Rica ...	281	Oct., 1952	c1,296,769	+ c52,714	18	c5,360,796	+ c413,494
	Dorada	70	Oct., 1952	36,865	— 29	44	345,133	— 15,987
	Inter. Ctl. Amer....	794	Oct., 1952	$1,040,283	+ $44,639	43	$10,837,325	— $124,807
	Paraguay Cent. ...	274	28.11.52	G729,292	+ G361,218	22	G13,280,846	+ G5,916,583
	Peru Corp. ...	1,050	Nov., 1952	$8,312,000	+ $410,000	22	$46,259,000	+ $5,459,000
	" (Bolivian Section)	66	Nov., 1952	Bs.16,210,000	+ Bs.124,000	22	Bs.82,290,000	+ Bs.6,485,000
	Salvador	100	Sep., 1952	c87,000	— c28,000	13	c363,000	— c18,000
	Taltal	122	Oct., 1952	$3,106,000	+ $1,467,000	18	$11,644,000	+ $3,701,000
Canada	Canadian National†	23,473	Oct., 1952	19,865,000	+ 1,137,000	44	187,052,000	+ 14,910,000
	Canadian Pacific† ...	17,037	Oct., 1952	13,352,000	— 115,000	44	126,435,000	+ 7,968,000
Various	Barsi Light* ...	167	Oct., 1952	33,915	+ 10,245	31	223,890	— 15,382
	Gold Coast ...	536	Oct., 1952	344,976	+ 56,940	29	2,032,983	+ 284,912
	Mid. of W. Australia	277	Sep., 1952	59,145	— 3,363	13	164,704	— 11,525
	South Africa ...	13,398	15.11.52	2,012,536	— 35,323	36	64,488,775	+ 1,892,934
	Victoria	4,744	Aug., 1952	2,442,385	+ 510,468	9	—	—

* Receipts are calculated at 1s. 6d. to the rupee † Calculated at $3 to £1